

1898

Family Platycephalidae  
The Flat Heads

Body depressed anteriorly, subcylindrical posteriorly. Head depressed or flattened, more or less armed with spines and serratures. Jaws, vomer, and palatines with bands of villiform teeth, sometimes some teeth enlarged and more or less canine-like. Tongue free at tip. No air vessel. Pyloric appendages in moderate number. Body covered everywhere closely with ctenoid scales. Head scaly posteriorly. Lateral line



8923 to 8927, 8929. Atulayan  
Island, Lagonoy Gulf, Luzon. June  
18, 1909. Length 245 to 283 mm. Dark  
brown, sometimes with slate; on  
fading side shows narrow brown  
lines with blue white interspaces as  
in *Ctenochaetus strigosus*. Breast  
from pectoral base downward washed  
orange brown. Caudal spine with  
bright orange socket. Orange blotch  
before and behind pupil. Dull obscure  
orange stripe from eye through nostrils  
across frontal region. No shoulder  
blotch. Dorsal slate gray or almost  
black basally, slate black line basally,  
and in alcohol few narrow bars appear  
on hind terminal portion. Anal like



1899

present. Two dorsal fins, first preceded by short detached spine. Lower rays of pectoral more or less free at tips; no free rays. Ventral with spine and 5 rays, thoracic, inserted wide apart and well behind pectorals.

Indo Pacific, one species reaching the east Atlantic. Usually abundant and valued market fishes.



1032

Black area about breadth of pupil,  
somewhat longer than wide, below  
upper angle of gill opening. Anal  
with narrow bright blue border.

18364. Cebu market. April 4, 1908.

Length 87 mm.

21819. Cebu market. March 22, 1909.

Length 50 mm.

[1856] Cebu market. August 23, 1909.

Length 58 mm.

3 examples. Cebu market. August

27, 1909. Length 40 to 55 mm.

A 726 and

A 727. Danawan Island. September

27, 1909. Length 240<sup>to 282</sup> mm.

8229. Galvaney Island, Ragay Gulf,

Luzon. March 9, 1909. Length 248 mm.

Apparently without stripes and possibly



Platycephalidae



# Analysis of Genera

- a. Teeth of jaws and palate fine, or villiform, without canines.
- b. Soft dorsal and anal with membranes entire.
- c. Head largely scaly; no enlarged or thickened scales on lateral line.
- d. Head moderately depressed, with strong ridges and high sharp spines; only 1 enlarged preopercular spine; vomerine teeth in 2 parallel bands; palatine teeth in band.
- e. No pit or cavity at hind orbital edge.
- f. Preopercle without antrorse spine.
- g. Grammoplitinae new subfamily.  
Each scale of lateral line with strong spine, continuous its entire length. Grammoplites.



1901  
g.<sup>2</sup> Lateral line only armed with  
spines in anterior part of its course,  
or smooth.

h. Inegociinae. Side of head with  
2 keels; infraorbital ridge with  
well spaced serrations; no  
enlarged antrorse preorbital  
spine; orbit without cirrus;  
scales moderate or small; scales  
of lateral line largely smooth,  
become weakly spined towards  
head.

i. Ridges of head without fine  
denticulations or granulations;  
lowest of 3 opercular spines  
small, obsolete with age.

j. Opercular edge with mem-  
branous flap below preopercular  
spine; preopercle spine short or  
 $\frac{1}{3}$  of orbit, or shorter; dorsal and  
anal rays 10; scales 58 to 60 + 6.

Inegocia.

j.<sup>2</sup> Opercular edge without flap;  
preopercle spine  $\frac{2}{3}$  of orbit; dorsal  
and anal rays 11; scales 80 to 85 + 5 or 6.

Coccius.



1902

i.<sup>2</sup> All minor ridges of head gran-  
ulate or denticulate; lowest  
preopercle spine strong; well  
defined ridge between orbit  
and occiput; inner premaxillary  
edge extends inward and back  
as thick inflexible lobe; opercle  
edge with flap below opercular  
spine; no orbital cirrus.

Suggrundes.

h.<sup>2</sup> Anigocinae. Side of head with  
single keel; infraorbital ridge  
armed with close-set serrations;  
rather strong antorse spine on  
preorbital edge; orbit with  
cirrus; scales large, pores less  
than 40 in lateral line.

h.<sup>1</sup> Scales of lateral line  
strongly spined anteriorly,  
weakly spined posteriorly;  
front orbital edge with  
serrations and strong spine;  
entire supraorbital ridge  
serrate; ventral elongate,  
reaches anal.

Wabigus.



1903

h.<sup>2</sup> Scales of lateral line  
with weak basal beels  
anteriorly, but no spines;  
front orbital edge with-  
out small serrations,  
with only single spine;  
only postero-supraorbital  
ridge serrate; ventral  
moderate, not reaching anal.

Onigdia.

f.<sup>2</sup> Rogadiinae. Preopercle with  
very strong antorse spine on  
lower edge; orbit without cirrus;  
ridges of head armed with close-  
set serrations or granulations;  
sides of head unicarinate; no  
opercular flap.

Rogadius.

e.<sup>2</sup> Cymbaplatycephalinae new subfamily.  
Conspicuous pit at hind orbital edge;  
several supraorbital tentacles and  
1 at front nostril; 2 subequal pre-  
opercular spines. Cymbaplatycephalus.



1904

d.<sup>2</sup> Platycephalinae. Head greatly depressed, with feeble ridges and spines; 2 enlarged preopercle spines; vomerine teeth in bilobed transverse band; palatine teeth uniserial.

l.<sup>1</sup> No median occipital ridge.

m.<sup>1</sup> Palatine teeth not enlarged.

n.<sup>1</sup> No parietal or nuchal spines.

o.<sup>1</sup> Eye subequal with or less than interorbital.

Platycephalus.

o.<sup>2</sup> Eye greater than interorbital.

m.<sup>2</sup> Pair of parietal and nuchal spines.

Laeviprora.

m.<sup>2</sup> Palatine teeth much larger than teeth in jaws or on vomer.

Planiprora.

l.<sup>2</sup> Median occipital ridge absent or rudimentary; no intermediate ridges between lateral occipital and supraorbital ridges.

Trudis.

l.<sup>3</sup> One short median occipital ridge present; lateral occipital



1905

ridges connected with supra-orbital ridges by intermediate ones. Longitundis.

c.<sup>2</sup> Thysanophryinae. Head nearly naked; scales enlarged and thickened. Thysanophrys.

b.<sup>2</sup> Elatinae. Soft dorsal and anal with most rays well branched, membranes incised marginally; preopercle spine longer than orbit; upper caudal lobe ends in filament; spines of head all low, though sharply pointed; maxillary reaches below nostrils. Elatas.

a.<sup>2</sup> Neoplatycephalinae. Jaws and palate with bands of small teeth containing large canines. Neoplatycephalus.



Grammoptiles borboniensis (Cuvier)

Platycephalus borboniensis Cuvier,  
Hist. Nat. Poiss., vol. 4, p. 252, 1829  
(type locality, Bourbon). —

Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 176, 1860 (reference). —

Guichenot, Notes Ile Réunion, vol.  
2, p. 24, 1862. — Sauvage, Nouv.

Arch. Mus., Paris, vol. 9, p. 58,  
1878.

Hist. Nat. Madagascar, Poiss.,  
p. 308, pl. 36, figs. 4-4a (head),  
1891 (type).

Thysanophrys borboniensis Jordan  
and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 630, 1908 (name  
only).



997  
to 2 1/4.

Depth <sup>3 to</sup>  $3 \frac{2}{3}$ ; head <sup>to 3 1/2,</sup>  $3 \frac{2}{5}$ , width <sup>to 2 1/4.</sup>  $1 \frac{4}{5}$ ;  
Snout <sup>3 to</sup>  $3 \frac{1}{4}$  in head from snout tip;  
eye <sup>3 1/3 to</sup>  $4 \frac{1}{8}$ , <sup>1 to</sup>  $1 \frac{1}{5}$  in snout, <sup>to 1 1/5</sup>  $1 \frac{1}{10}$  in interorbital;  
maxillary reaches <sup>greater than interorbital in young to</sup>  $\frac{1}{8}$  in eye, expansion  
<sup>1 3/4 to</sup>  $2 \frac{1}{8}$  in eye, length <sup>to 3 1/8.</sup>  $2 \frac{7}{8}$  in head from  
snout tip; teeth fine, in rather narrow  
bands in jaws of 5 irregular series,  
with outer row little enlarged; palate  
and tongue edentulous; interorbital  
 $3 \frac{1}{4}$ , convexly elevated; preopercle edge  
with 35 rather slender well exposed  
denticles, most on vertical edge. Gill  
rakers <sup>or 18</sup>  $17 + 25$ , slender, lanceolate,  
slightly less than <sup>to equal to</sup> gill filaments <sup>1 3/4 to</sup>  $1 \frac{7}{8}$   
in eye.

Scales <sup>to 92</sup>  $90$  in lateral line (counted  
along close above) to caudal base and  
12 more on latter; pores 53 in lateral  
line to caudal base and 6 more on  
latter; 17 scales above lateral line,



1906

Genus Grammophilites Fowler

Grammophilites Fowler, Journ.  
Acad. Nat. Sci. Philadelphia,  
ser. 2, vol. 12, p. 550, 1904.  
(Type Cottus scaber Linnaeus,  
orthotypic.)

Distinguished chiefly by the  
completely armed lateral line,  
each scale in its course armed  
with a small spine.



1908

From the dorsal figure of  
the head given by Sauvage the  
first 3 or 4 scales of the  
lateral line are shown as  
each bearing a spine. This,  
however, is somewhat vitiated  
by Cuvier's statement "les  
épines de la ligne latérale  
are beaucoup moins saillantes."  
I therefore tentatively in the  
present genus.



1909

Grammophites scaber (Linnaeus)

~~Gynerium~~

Cottus scaber Linnaeus, Syst. Nat.,  
ed. 10, pt. 1, p. 264, 1758 (type  
locality).



Platycephalus scaber Schneider,  
Syst. Ichth. Bloch, p. 58, 1801

— Bleeker, Act. Soc. Sci. Ind. Neerl.,  
vol. 3, no. 9, p. 2, 1857-58 (Padang,  
Sumatra), p. 3 (Trusmi), p. 5  
(Priaman); vol. 5, no. 7, p. 2,  
1858-59 (Sinkawang, Borneo).  
— Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 187, 1860 (copied). —  
Bleeker, Nat. Tijds. Ned. Indie,  
vol. 21, p. 138, 1860 (Muntok,  
Banka); vol. 22, p. 108, 1860  
(Muntok); Verslag. Kon. Akad.  
Wet. Amsterdam, vol. 12, p. 32,  
1861 (Singapore).



— Kner, Reise Novara, Fische, p.  
123, 1865 (Ceylon). — Bleeker,  
ned. Tijds. Dierk., vol. 2, p. 174,  
1865 (Siam). — Peters, Monatsb-  
Abad. Wiss. Berlin, p. 259, 1868.

— Day, Fishes of India, pt. 2, p. 275,  
pl. 60, fig. 4, 1876.

— Bleeker, Atlas Ichth. Ind.  
Néerl., vol. 9, pl. (2) 419, fig. 5, 1877.

— Sauvage, Nouv. Arch. Mus. Hist.  
Nat. Paris, vol. 10, p. 59

— Bleeker, Verh. Kon. Akad. Wet.,  
Amsterdam, vol. 19, no. 2, p. 14, 1879  
(Sumatra, Nias, Singapore, Banka,  
Java, Madura, Borneo, Celebes,  
Timor?).



16 below, <sup>50 to</sup> 67 predorsal, <sup>14 to</sup> 17 rows on  
cheeks. Suprascapula with several  
blunt spines. Scales with 5 basal  
radiating striae; apical denticles 55,  
small, slender, with 10 transverse  
series of basal elements; circuli very  
fine.

D. XIV, <sup>17, I or</sup> 18, I, fourth spine <sup>2 1/5 to</sup> 2 1/2 in total  
head length, first ray <sup>3 to</sup> 3 7/8; A. III, 7, I,  
third spine <sup>2 1/10 to</sup> 2 1/3, first ray <sup>2 to</sup> 2 1/8?; caudal  
<sup>1 1/10 to</sup> 1 1/4, concave behind; least depth of  
caudal peduncle <sup>to 2 4/5</sup> 1 1/4; pectoral <sup>1 1/5 to</sup> 1 1/3;  
ventral <sup>1 4/5 to</sup> 3/4.

Largely uniform brown <sup>with age</sup>, little paler  
below. On body each row of scales  
with streaks formed obliquely as scales  
slope upward, both above and below  
lateral line. Iris reddish brown. Fins  
all more or less darker brown than  
body. Brassy to silvery reflections on



— Gilchrist and Thompson, Ann.  
South African Mus., vol. 6, ~~1908-11~~,  
p. 193, 1908-11 (West of Umhlanga  
River, Cape Natal Lighthouse  
S. W.  $\frac{1}{2}$  W. 8 mi.).

— Zugmayer, Abhandl. <sup>Kön.</sup> Bayer. Akad.  
Wiss., math.-physik. Kl., vol. 26, abth.  
6, p. 14, 1913 (Mekran).



22545 U.S.N.M. Japan. Japanese Government. Length 280 mm.

59731 U.S.N.M. Urado, Japan. Dr. H. M. Smith. Length 267 mm.

71180 U.S.N.M. Misaki. Albatross Collection. Length 123 to 130 mm. 2 examples.

71301 U.S.N.M. Misaki. Albatross Collection. Length 125 to 187 mm. 3 examples.

71350 U.S.N.M. Misaki. Albatross Collection 1906. Length 200 to 224 mm. 2 examples.

75471 U.S.N.M. Tokyo. Jordan and Snyder. Length 128 to 185 mm. 4 examples.

75470 U.S.N.M. Walsanoura. Jordan and Snyder. Length 45 to 155 mm. 4 examples.

75472 U.S.N.M. Enoshima. Jordan and Snyder. Length 130 mm.



1913

Grammophilites scaber Fowler, Journ.  
Acad. Nat. Sci. Philadelphia,  
ser. 2, vol. 12, p. 550, 1904 (Padang);  
Proc. Acad. Nat. Sci. Philadelphia,  
vol. 87, p. 153, 1935 (Bangkok;  
Paknam).



Genus Plectorhynchus Lacépède

Plectorhynchus Lacépède, Hist. Nat. Poiss., vol. 3, 1802, p. 134. Type Plectorhynchus chaetodonoides Lacépède, monotypic.

Plectorhynchus Duméril, Zool. Analyt., 1806, p. (126) 340. Type Plectorhynchus chaetodonoides Lacépède.

Plectorhynchus Cuvier, Règne Animal, vol. 2, 1817, p. 344. Type Plectorhynchus chaetodonoides Lacépède.

Gaterin Forskål, Descript. Animal., 1775, p. (12) 45. Type Sciaena gaterina Forskål, assumed tautotype through vernacular. (Inadmissible.)

Diagramma Oken, Isis, 1817, p. 782.

Type Antheas diagramma Bloch, monotypic. (On Les Diagrammes Cuvier, Règne Animal, vol. 2, 1817, p. 280.)

Pseudopristipoma Sauvage, Bull. Soc.

Philomath. Paris, series 7, vol. 4, 1880, p.



1914

Thysanophrys scaber Fowler, Journ.  
Bombay Nat. Hist. Soc., vol. 33, no. 1,  
p. 117, Sep. 30, 1928 (Bombay).  
Jordan and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 630, 1908 (name only).

Platycephalus timoriensis Cuvier,  
Hist. Nat. Poiss., vol. 4, p. 254, 1829  
(type locality, Timor).

Platycephalus rodericensis Cuvier,  
op. cit., p. 253 (type locality, Bourbon).  
— G.

— Troschel, Archiv Naturg., p. 270,  
1840.

— Guichenot, Notes Ile Réunion, vol.  
2, p. 24, 1862.

Thysanophrys rodericensis Jordan  
and Richardson, Proc. U. S. Nat. Mus.,  
vol. 33, p. 630, 1908 (name only).



864

Family Pomadasyidae

Body oblong, somewhat elevated. Head large, mouth variably large or small, low, terminal, horizontal. Premaxillaries protractile. Maxillary without supplemental bone, slips below preorbital most its length. Teeth pointed, none as distinct canines, palate and tongue edentulous. Preorbital usually deep. Preopercle serrate. Opercle spineless. Gill rakers moderate. Gills 4, large slit behind fourth. Pseudobranchiae large. Gill membranes separate, free from isthmus. Branchiostegals 6 or 7. Vertebral 24, of which 14 caudal. Intestinal canal short. Stomach coecal. Pyloric coeca few. Air bladder present. Scales moderate, adherent, usually ctenoid, sometimes nearly cycloid. Sides of head usually scaly. Lateral line



Platycephalus vittatus Valenciennes,  
Hist. Nat. Poiss., vol. 9, p. <sup>462</sup>~~341~~, 1835<sup>3</sup>  
(type locality, Malabar).

— Bleeker, Verh. Batavia. Genoot.  
(Nat. Ich. Bengal), vol. 25, p. 36,  
1853 (reference).

Platycephalus neglectus Troschel,  
Archiv. Naturg., p. 272, 1840 (type  
locality,

— Gunther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 187, 1860 (Madras; China).

— Kner, Reise Novara, Fische, p. 123,  
1865 (Java). — Elera, Cat. Fauna  
Filipinas, vol. 1, p. 498, 1897 (Luzon;  
Manila).

Thysanophrys neglectus Jordan and  
Richardson, Proc. U. S. Nat. Mus., vol.  
33, p. 630, 1908 (name only).



well developed, concurrent with back, <sup>often</sup> not extending on caudal.

Dorsal single, continuous or deeply notched, sometimes divided as two fins; spines 9 to 14, usually strong and depressible in a groove, heteracanthous. Anal like dorsal, with 3 spines. Caudal usually more or less concave behind. Ventral thoracic, with spine and 5 rays and basal scale like appendage.

A large group of carnivorous shore fishes, found in most warm seas and many valued as food.

They are intermediate between the Lutjanidae and the Sparidae, some also approach the Serranidae while others suggest the Sciaenidae.



Platycephalus suppositus

Troschel, Archiv Naturg., p. 269,  
1840 (type locality,

— Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 187, 1860 (copied). — Day,  
Fishes of Malabar, p. 46, 1865.



# Analysis of the genera

a. Caesioninae. Body oblong oval or partly elongate; ~~teeth in pairs small, acute, conic or setiform, no canines~~; palate without or with only rudimentary teeth; maxillary moderately or slightly protractile, scaleless; preopercle not serrated; dorsal not divided, spines slender.

b. Snout not ending in conic fleshy papilla or point.

c. Scales in horizontal rows below lateral line, in parallel or oblique rows above lateral line.

d. Soft dorsal twice length of spinous fin.

e. Dorsal rays 15 or 16, fin scaleless.

Gymnocaesio

e.<sup>2</sup> Dorsal rays 21, fin scaled. Pterocaesio

d.<sup>2</sup> Soft dorsal and anal subequal, fins scaly. Caesio

c.<sup>2</sup> Scales in oblique rows crossing lateral



1917

Depth  $7\frac{1}{3}$  to 8; head  $2\frac{9}{10}$  to 3,  
width  $1\frac{4}{5}$  to 2. Snout  $3\frac{1}{3}$  to  $3\frac{1}{2}$   
in head from snout tip; eye  
 $5\frac{7}{8}$  to 7,  $1\frac{3}{4}$  to 2 in snout,  
little greater than bony inter-  
orbital; orbit  $4\frac{4}{5}$  to  $5\frac{1}{2}$  in  
head from snout tip,  $1\frac{2}{5}$  to  
 $1\frac{3}{5}$  in snout; maxillary reaches  
 $\frac{1}{4}$  to  $\frac{1}{3}$  in eye, length  $2\frac{2}{5}$  to  
 $2\frac{2}{3}$  in head from snout tip;  
teeth villiform, in broad bands  
in jaws and upper band  
anteriorly nearly twice as wide;  
small patch each side of  
vomer and long narrow band  
along each palatine; bony  
interorbital  $1\frac{1}{8}$  to  $1\frac{3}{4}$  in orbit,  
little concave. Gill rakers 1 or 2  
+ 5 to 7, lanceolate, equal  
gill filaments or  $1\frac{1}{5}$  in eye,



also 4 rudimentary tubercles  
above and below. 1918

No nasal spines; large  
antero-supraorbital spine  
and 4 or 5 postero-supraorbital  
spines, then long keel from  
each to parietal pair, but no  
occipitals; postocular ridge  
with 5 wide set spines, last  
suprascapular; 2 lateral ridges  
on head, upper as suborbital  
stay with 4 or 5 principal  
spines, though anteriorly or at  
preorbital ridge sometimes  
serrate; strong spine at pre-  
opercular angle  $1\frac{2}{3}$  in orbit  
and with or without small  
prebasal spine externally;  
also 2 other preopercular spines,  
smaller, lower especially so;  
2 opercular spines, lower



advanced; strong, short, humeral<sup>1919</sup>  
spine.

Spinous scales 50 to 53+ in  
lateral line; scales 86 to 88+  
6 in lateral line; 5 above, 16  
below, 10 predorsal forward to  
occiput. Bones on top of head  
all more or less rugosely striate.  
Scales small on chest and  
breast, none on prepectoral  
region. Caudal scaly over  
basal half. Scales with 5 to 7  
basal radiating striae; 26 to  
31 apical denticles, with 6 or 7  
transverse series of basal  
elements; circuli fine, little  
coarser apically.

D. IX - 12, I, third spine  $2\frac{3}{5}$   
to  $2\frac{2}{3}$  in total head length,  
first branched ray  $2\frac{2}{3}$  to  $2\frac{4}{5}$ ;  
A. I, 11, I or I, 12, I, first branched



1920

ray  $4\frac{3}{5}$  to  $4\frac{2}{3}$ ; caudal  $1\frac{9}{10}$  to  $2\frac{1}{8}$ ,  
forms median, obtuse angle  
behind; least depth of  
caudal peduncle 7 to  $9\frac{2}{3}$ ;  
pectoral  $2\frac{3}{5}$  to  $2\frac{2}{3}$ , rays I, 19,  
length  $1\frac{7}{8}$  to 2 in depressed  
ventral; ventral rays I, 5,  
fin  $1\frac{2}{3}$  to  $1\frac{4}{5}$  in total head  
length, not reaching anal.

Brown above, variously  
mottled with lighter and  
darker. Usually dark brown  
band between eyes; narrow  
transverse dark line across  
from vertical limb of preopercle;  
broad brown band at pre-  
dorsal; another at last  
half of first dorsal and  
before second dorsal; narrow  
one from front of second dorsal



1924

and broad one from hind part;  
narrow dark band at  
caudal peduncle close before  
caudal base. Body and head  
below whitish. Iris gray or  
yellowish. Spinous dorsal  
clouded with brownish to  
gray blackish, deepest  
terminally. Soft dorsal gray  
or brownish, each ray with  
3 to 6 darker brown spots,  
fewer on lower rays. Caudal  
with brown spots on rays,  
base sometimes more brown-  
ish and again dark gray  
terminally. Anal white.  
Paired fins brownish, especially  
upper part of pectoral and  
upper rays often spotted with  
dark brown. Ventral dark



1922

brown terminally.

<sup>hatal,</sup>  
India, Siam, Malaya,  
East Indies, Philippines, China.

9630 to 9633. D. 5642. Tikola  
Peninsula (N.), N.  $38^{\circ}$  W., 6.5  
miles (S. lat.  $4^{\circ}31'40''$ , E. long.  
 $122^{\circ}49'42''$ ), Buton Strait.

In 37 fathoms. December 14, 1909.  
Length 108 to 162 mm. In these  
the antero-supraorbital spines  
are much closer together than  
in the larger examples. Also the  
3 spines on the cheek behind the  
eye and on the suborbital stay  
are much larger and conspicuous.  
Interorbital much narrower.



11738 and 11739. Sandakan<sup>1923</sup>  
market, Borneo. March 2, 1908.  
Length 197 to 200 mm.

20740. Tongquil Island,  
east of Gurnila Reef. September  
14, 1909. Length 193 mm.

A. S. N. M., No. 32691, Indian  
Archipelago. Royal Museum of  
Leiden. Length 218 mm.

A. S. N. M., No. 72723, Batavia.  
April 2, 1909. Length 198 mm.

A. N. S. P., one example. Bombay.  
Dr. F. Hallberg. Purchased. Length  
217 mm.



1924

Grammophytes maculipinna (Regan).

Platycephalus maculipinna Regan,  
Journ. Bombay Nat. Hist. Soc.,  
vol. 16, no. 2, p. 323, pl. A, fig.  
3, 1905 (type locality, Muscat,  
in 15 to 30 fathoms).

Depth  $7\frac{1}{2}$  to 8; head 3 to  $3\frac{1}{3}$ ,  
width  $1\frac{3}{5}$  to  $1\frac{2}{3}$ . Snout  $3\frac{1}{2}$   
in head from snout tip; eye  
 $4\frac{1}{3}$  to  $5\frac{1}{4}$ ,  $1\frac{1}{4}$  to  $1\frac{1}{2}$  in snout;  
maxillary reaches  $\frac{1}{4}$  in eye,  
length  $2\frac{4}{5}$  in head from  
snout tip; interorbital 8.  
Upper surface of head with  
ridges bearing some short spines  
at intervals, but not serrated,  
except supraorbital ridge  
which has 3 or 4 teeth.  
Preopercle with strong spine  
at angle, long as its distance



1925

from orbit; below it short  
spinous projection and some-  
times another weaker one below  
that.

Scales 100 to 104 in a  
longitudinal series; lateral  
line spinate its whole extent;  
9 scales below to anal origin.  
D. ~~IX~~, 12, third spine  $2\frac{3}{7}$   
in total head length, first  
ray  $2\frac{3}{5}$ ; A. 13, third ray 5;  
caudal  $2\frac{1}{5}$ , truncate; least  
depth of caudal peduncle 8;  
pectoral  $2\frac{3}{4}$ , reaches  $1\frac{4}{5}$  to  
anal; ventral rays I, 5, fin  
length  $1\frac{3}{5}$  in total head length  
or reaches little beyond anal  
origin.

Spinous dorsal with large  
black blotch marginally between  
sixth to eighth (ninth) spines.



Soft dorsal with small dark spots on membrane in front of each ray. Caudal blackish, (pale on figure), with pale lower edge. Anal pale, immaculate. Pectoral with small dark spots. Ventral blackish, with narrow (lower) white edge. Length without caudal 190 mm. (Regan.)

Arabia. Apparently distinguishable from G. Tseaber in its very long preopercular spine, shown longer than the eye in Regan's figure, and the small dark spots of the soft dorsal all on the fin membranes and close before each ray.



Grammophites pristis (Peters) <sup>1926</sup>

Platycephalus pristis Peters,  
Archiv Naturg., vol. 21, pt. 1, p.  
240, 1855 (type locality, Mozam-  
bique). — Günther, Cat. Fish.  
Brit. Mus., vol. 2, p. 188, 1860  
(copied). — Playfair, Fishes of  
Zanzibar, p. 49, 1866 (Zanzibar).

Grammophites pristis Fowler, Proc.  
Acad. Nat. Sci. Philadelphia,  
p. 398, 1935 (atal).



3, no. 10, 1857, <sup>58, p. 3 (Kioesio), p. 5 (Japan), p. 14. —</sup> ~~Journal of the Asiatic Society~~ <sup>(996)</sup>

Günther, Cat. Fishes Brit. Mus., vol. 1, 1859, p. 303 (Chinese Seas). — Steindachner and Döderlein, Denks. Akad. Wiss. Wien, Math. Phys. Klasse, vol. 48, pt. 1, 1883, p. 10 (Tokyo).

Diagramma japonicum Bleeker, Verhand. Batav. Genootsch., vol. 25, no. 7, 1852, p. (12) 31 (Nagasaki).

→ Diagramma aporognathus Regan, Ann. Mag. Nat. Hist. London, series 7, vol. 16, 1905, p. 364. Inland Sea of Japan.

— Ishikawa and Matsuura, Prelim. Cat. Fishes Mus. Tokyo, 1897, pp. 54, 55. — Franz, Abhandl. Kais. Bayer. Akad. Wiss., vol. 4, Suppl. Band 1, 1910, p. 47 (Yokohama).

— Plectrohynchus ocyurus Jordan and Evermann, Proc. U. S. Nat. Mus., vol. 25, 1903, p. 348, fig. 19. Formosa.

— Jordan and Richardson, Mem. Carnegie Mus., vol. 4, no. 4, August 28, 1909, p. 187, fig. 17 (copied).



1927

Thysanophrys pristis Jordan and  
Richardson, Proc. U. S. Nat. Mus.,  
vol. 33, p. 630, 1908 (name only).



Parapristipoma trilineatum (Thunberg)

Perca trilineata Thunberg, Kon. Vet.

Acad. Nyæ Handligar, vol. 14, 1793, p. 55,  
pl. 5, fig. 2. Japan.

Parapristipoma trilineatum Bleeker, Arch.  
Néerl. Sci. Nat. Harlem, vol. 8, 1872, p. 22  
(Kiusiu, Nagasaki; China). — Jordan  
and Thompson, Proc. U. S. Nat. Mus., vol.  
41, 1912, p. 544 (Tokyo, Misaki, Enoshima,  
Wakanoura, Nagasaki). — Izuka and  
Matsuura, Cat. Zool. Specim. Tokyo Mus.,  
1920, p. 149 (Boshu).

Pristipoma japonicum Cuvier, Hist. Nat. Poiss.,  
vol. 5, 1830, p. 288. Japan. — Schlegel,  
Fauna Japonica, Poiss., dec. 2-4, 1843, p.  
60, pl. 26, fig. 2 (south west coast of Japan).  
— Richardson, Ichth. China Japan, 1846,  
p. 228 (coast of China and Japan). —  
Bleeker, Act. Soc. Sci. Ind. Néerl., vol.



1928

Depth  $5\frac{2}{3}$ ; head  $2\frac{7}{8}$ , width  $1\frac{1}{4}$ . Snout  $3\frac{1}{8}$  in head from snout tip; eye  $4\frac{1}{2}$ ,  $1\frac{1}{5}$  in snout, much greater than width of narrow interorbital; maxillary reaches  $\frac{1}{4}$  in eye, expansion 3 in eye, length  $2\frac{3}{4}$  in head from snout tip; bands of finely villiform teeth in jaws, on vomer and palatines; interorbital concave. Gill rakers  $1+4$ , also 4 more rudiments below, flattened, asperous tubercles above and below; short,  $1\frac{2}{3}$  in gill filaments, which 3 in eye.

Pair of well developed nasal spines; supraorbital ridge reticulate, each ridge preceded by slightly larger denticle or spine; single, small, forward directed pre-



1929

orbital spine each side; suborbital stay serrated (with front edge smooth); 2 opercular spines, upper little larger; 2 preopercular spines, lower much shorter and directed back like upper, which is furnished with a small outer axillary basal one; postorbital and parietal spinescent ridges distinct and conspicuous.

Scales  $50 + 3$  in lateral line, only first 7 or 8 furnished with median, backward directed spine; 4 scales above, 12 below, 8 predorsal forward to occiput. Cheek below suborbital stay papillate. Scales with 4 basal radiating striae and 2 to 5 incomplete auxiliaries; 40 to 56 short, uniform-apical denticles, with 2 to 5 transverse series of



basal elements; circuli very fine.

D. VIII - 12, I, fourth spine  $2\frac{2}{3}$  in total head length, third ray  $2\frac{1}{5}$ ; A. 13, I, third ray 3; caudal  $1\frac{3}{4}$ , convex behind; least depth of caudal peduncle 4; pectoral  $1\frac{7}{8}$ , rays II, 18; ventral rays I, 5, fin  $1\frac{1}{4}$  in total head length.

Brown, with ~~obscure~~ transverse bands on back; first obscurely at occiput; second narrow, at front of spinous dorsal or slightly before; third broad, at greater posterior part of spinous dorsal; broad fourth band at last dorsal rays; fifth at caudal peduncle. Dark blotch on cheek below suborbital stay.



1931

Whole back, in both dark and pale areas obscurely mottled. Under surface of head and body whitish. Iris gray. Fins pale or transparent; 6 dark gray blotches; caudal with blackish basal transverse band and 5 or 6 dark gray blotches on each ray, much broader than pale interspaces; pectoral with 5 or 6 transverse series of dark gray spots on each ray. Ventral and anal uniformly pale.

A. N. S. P., one example. Natal.  
H. W. Bell Marley. Length 158 mm.



1932

Genus Inegocia Jordan and Thompson

Inegocia Jordan and Thompson,  
Proc. U. S. Nat. Mus., vol. 46, p. 70,  
1913. (Type Platycephalus japonicus  
Gilesius, orthotypic.)



Body elongate, well depressed,  
rather broadly so. Head  
large, broadly depressed.  
Teeth in villiform bands.  
Side of head with 2 bony  
beaks. Upper preopercular  
spine short or moderate.  
Opercular margin with  
membranous flap below  
preopercular spines. Lateral  
line unarmed.



1934

Inegocia japonica (Tilesius)

Platycephalus japonicus Tilesius,  
Reise Krusenstern, pl. 59, fig. 1,  
1812 (type locality, Nagasaki).  
— Cuvier, Hist. Nat. Poiss.,  
vol. 4, p. 256, 1829 (copied).  
— Schlegel, Fauna Japonica,  
Poiss., pts. 2-4, p. 40, pl. 16,  
fig. 3, 1843 (Japan). —  
Richardson, Ichth. China and  
Japan, p. 217, 1846 (China).  
— Bleeker, Verh. Batavia. Genoot.  
(Nal. Ichth. Japan), vol. 25, p.  
11, 1853 (reference); (Nal. Ichth.  
Japan), vol. 26, pp. 5, 78, 1857  
(Nagasaki); vol. 3, no. 3, p. 5,  
1857-58 (Japan).



— Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 181, 1860 (China; Japan).

— Schmeltz, Cat. Mus. Godeffroy,  
no. 4, p. 16, 1869 (Samoa).

— Macleay, Proc. Linn. Soc. New South  
Wales, vol. , p. 220, 1881  
(Port Darwin).

— Pöhl, Cat. Mus. Godeffroy, no. 10,  
p. 32, 1884 (Samoa).

— Steindachner and Döderlein,  
Denks. Akad. Wiss. Wien, math.-  
naturw. Kl., vol. 53, pt. 1, p. 260,  
1887 (Tokyo).



— Steindachner, Ann. K. K. Natur-  
histor. Hofmus. Wien, vol. 11, p.  
207, 1896 (Japan). — Elera,  
Cat. Fauna Filipinas, vol. 1, p.  
498, 1897 (Luzon; Cavite; Santa  
Cruz).



Thysanophrys japonicus Jordan  
and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 636, fig. 3, 1908  
(Tokyo, Misaki, Iwura, Nagasaki,  
Wakamatsu). 7

— Fowler, Mem. Bishop Mus., vol.  
10, p. 300, 1928 (copied); vol. 11,  
no. 5, p. 350, 1931 (reference).



Silurus inermis (not Linnaeus 1766)  
Houttigny, Verh. Holland. Maatsch.  
Haarlem, vol. 20, p. 338, 1782  
 (Japan). — Walbaum, Artedi  
Pisc., vol. 3, p. 575, 1792 (copied).

Platycephalus guttatus Schlegel,  
Fauna Japonica, Poiss., pt.  
 p. 39, pl. 15, fig. 2, 18

— Richardson, Ichth. China and  
Japan, p. 217, 1846 (Canton). —  
Günther, Cat. Fish. Brit. Mus.,  
 vol. 2, p. 183, 1860 (copied).

— Ishikawa and Matsuura, Cat.  
Mus. Tokyo, p. 48, 1897.



1939  
Platycephalus armatus (Döderlein)  
Steindachner and Döderlein,  
Denks. Akad. Wiss. Wien, math.-  
naturw. Kl., vol. 53, pt. 1, p. 260,  
1887 (name in synonymy).

Platycephalus bataviensis (not  
Bleeker) Evermann and Seale,  
Bull. ~~Am.~~ S. Fish Comm., vol. 26,  
p. 103, 1906 (Jolo).



1940

Depth  $7\frac{1}{4}$  to 10; head  $2\frac{3}{5}$  to  $2\frac{7}{8}$ , width  $1\frac{7}{8}$  to 2. Snout 3 to  $3\frac{1}{8}$  in head from snout tip; eye  $5\frac{3}{5}$  to  $5\frac{4}{5}$ ,  $1\frac{3}{4}$  to  $1\frac{7}{8}$  in snout,  $2\frac{1}{2}$  to 3 times interorbital width; orbit  $4\frac{2}{3}$  to  $5\frac{1}{5}$  in head from snout tip,  $1\frac{1}{3}$  to  $1\frac{2}{5}$  in snout; maxillary reaches  $\frac{1}{8}$  to  $\frac{1}{4}$  in eye, length  $2\frac{3}{5}$  to  $2\frac{4}{5}$  in head from snout tip; teeth minutely villiform, in bands in jaws, upper anteriorly twice width of lower, 2 broad parallel patches of villiform teeth on vomer and longitudinal moderately wide band on each palatine, tapering back posteriorly; tongue broadly



Genus Grammophilites Fowler

Grammophilites Fowler, Journ. Acad.  
Nat. Sci. Philadelphia, ser. 2, vol.  
12, p. 550, 1904. (Type Cottus  
scaber Linnaeus, orthotypic.)



1941

cuneate; interorbital  $2\frac{3}{4}$  to  $3\frac{1}{2}$   
in orbit, deeply concave. Gill  
rakers  $2+5$ , subequal with  
gill filaments or 3 in orbit;  
7 or 8 rudimentary asperous  
tubercles above and below.

Pair of small, close set  
spines between front nostrils;  
single (sometimes bifid) large  
antero-supraorbital spine  
and 5 or 6 postero-supraorbital  
serrae, followed by pair of  
coronals, then long keel to  
each large and strong parietal  
spine and finally shorter  
keel, each ending in rather  
slight occipital spine; post-  
orbital row of 5 spines,  
usually 3 serrae over preopercle  
vertical limb; 2 lateral keels



Genus Inegocia Jordan and Thompson

Inegocia Jordan and Thompson,  
Proc. U. S. Nat. Mus., vol. 44, p. 70,  
1913. (Type Platycephalus japonicus  
Krusenstern, orthotypic.)



. 1942

on head, upper as suborbital stay, with 2 strong spines of which first opposite front part of eye and posterior opposite hind edge of orbit; 3 divergent spines at preopercle angle, upper largest and inclined little up and back, length half of orbit and with small predorsal spine on outer surface; second spine directed down and short and lowest spine obsolete, small and blunt; small fleshy flap below front of preopercle spines; 2 opercular spines, lower advanced, with long keel forward and inclined little upward; strong, short, broad humeral spine.



1942

Scales 58 to 60 + 6 in lateral line; tubular scales 45 to 48 + 4 or 5 in lateral line and first 3 to 5 each with small spine; 7 scales above, 15 below, 11 predorsal forward to occiput. Small scales on chest, breast, belly and caudal base nearly  $\frac{1}{3}$  its extent, none on prepectoral. Scales with 4 to 6 basal radiating striae; 22 to 28 slender, short apical denticles, with 4 or 5 transverse series of basal elements; circuli fine, little coarser apically.

D. IX - I, 11, I, third spine  $2\frac{1}{4}$  to  $2\frac{1}{2}$  in total head length, second branched ray  $2\frac{1}{4}$  to  $2\frac{1}{3}$ ; A. 12, I, third ray 4 to  $4\frac{1}{5}$ ;



1946

U. S. N. M., no. 59652. Kagoshima,  
Japan. Dr. H. M. Smith. Length  
218 mm.

U. S. N. M., no. 67315. Nagasaki,  
Japan. D. S. Jordan and J. D.  
Snyder. Length 95 to 177 mm.  
Ten examples.

U. S. N. M., no. 70735. Wakanoura,  
Japan. Albatross Collection.  
D. S. Jordan and J. D. Snyder.  
Length 123 to 147 mm. Seven  
examples.

U. S. N. M., no. 70732. Tsuwaga,  
Japan. D. S. Jordan and J. D.  
Snyder. Length 214 to 228 mm.  
Four examples.

U. S. N. M., no. 70740. Nagasaki.  
Albatross Collection. Length 113  
to 203 mm. Ten examples.



1947  
U. S. N. M., No. 72130, Kagoshima,  
Japan. Albatross Collection.  
Length 120 to 210 mm. Six  
examples.

U. S. N. M., No. 72153. Misaki,  
Japan. Albatross Collection 1906.  
Length 143 mm.

U. S. N. M., No. 73853. Japan.  
December 10, 1911. E. S. Morse.  
Length 119 mm.

U. S. N. M. (2 examples with  
No. 6093). Hong Kong, China.  
William Stimpson. Length 154 to  
158 mm.

U. S. N. M. (1 example with  
No. 6499). Hong Kong. William  
Stimpson. Length 163 mm.



1943

caudal  $1\frac{4}{5}$  to  $1\frac{5}{6}$ , convex behind;  
least depth of caudal peduncle  
 $6\frac{3}{5}$  to  $7\frac{2}{3}$ ; pectoral  $2\frac{1}{8}$  to  $2\frac{1}{5}$ ,  
reaches  $1\frac{4}{5}$  to 2 in depressed  
ventral, rays II, 18; ventral  
ray I, 5, fin reaches base of  
second or third anal ray or  
 $1\frac{1}{3}$  to  $1\frac{2}{5}$  in total head length.

Brown above mottled with  
darker, with 10 or 11 irregular  
transverse still darker cross  
bands, usually more or less  
alternating as broader or  
narrower. Upper surface may  
also be finely speckled to  
spotted with dark brown.  
Lift and side of head along  
2 lateral keels with dark  
brown spots, smaller on former.



Under surface of body whitish.  
Iris pale brown to yellowish.  
Dorsals pale, with 3 to 6 spots  
on each spine and 5 or 6 on  
each ray. Caudal pale, with  
5 or 6 dark transverse bands;  
usually paler in middle of  
fin. Paired fins with rays  
finely spotted with dark  
brown.

Philippines, China, Japan,  
North Australia, Polynesia.



1945

Eight examples. Tacloban anchorage. April 12, 1908. Length 68 to 82 mm.

U. S. N. M., No. 37985. East Asia. N. M. Ferebee. Length 90 to 233 mm. Two examples.

U. S. N. M., No. 44143. Japan. 1878. E. S. Morse. Length 104 to 212 mm. Twelve examples.

U. S. N. M., No. 45324. Fusan, Korea. P. L. Jouy. Length 150 mm.

U. S. N. M., No. 55936. Zolo. Bur. of Fisheries (3276). Length 200 mm. As Platycephalus butaviensis.



— Bleeker, Atlas Ichth. Ind. Néerl.,  
vol. 9, pl. (1) 418, fig. 2, 1877;  
Verh. Kon. Akad. Wet. Amsterdam,  
vol. 19, no. 2, p. 11, 1879 (Timor,  
Ternate, Batjan, Amboina,  
Saparoua).

— Macleay, Proc. Linn. Soc. New-  
South Wales, vol. 7, p. 360, 1882  
(New Guinea); vol. 8, p. 267, 1883  
(New Guinea).

— Steindachner, Abhandl. Senckenb.  
Gesell., vol. 25, p. 438, 1900 (Ternate).



1949

Thysanophrys quoyi Fowler, Mem.  
Bishop Mus., vol. 10, p. 300, 1928  
(copied).



Platycephalus punctatus (not  
Cuvier) Duoy and Gaimard,  
Voy. Astrolabe, Zool., vol. 3, pl.  
10, fig. 2, 18 (not description).



Inegoria quoyi (Bleeker)

Platycephalus quoyi Bleeker,  
 Nat. Tijds. Ned. Indie, vol. 12,  
 p. (193) 206, 1856 (type locality,  
 Ternate); Act. Soc. Sci. Ind.  
 Neerl., vol. 2, no. 7, p. 4, 1857  
 (Amboina); Nat. Tijds. Ned.  
 Indie, vol. 16, p. 29, 1858  
 (Amboina). — Günther, Cat.  
 Fish. Brit. Mus., vol. 2,  
 p. 180, 1860 (copied).

— Bleeker, Ned. Tijds. Dierk.,  
 vol. 1, p. 152, 1863 (Batjan), p. 264  
 (Atapupu, Timor); Verslag. Kon.  
 Akad. Wet. Amsterdam, vol. 16,  
 p. 361, 1864 (Saparoua).



1950

Depth 8 to  $10\frac{1}{2}$ ; head  $2\frac{7}{8}$  to 3,  
width  $1\frac{2}{3}$  to 2. Snout 3 to  $3\frac{1}{4}$   
in head from snout tip; eye  
 $5\frac{7}{8}$  to 6, 2 in snout,  $2\frac{2}{3}$  to  
 $2\frac{1}{2}$  times bony interorbital;  
orbit  $4\frac{1}{3}$  to  $4\frac{3}{4}$  in head from  
snout tip,  $1\frac{1}{3}$  to  $1\frac{2}{3}$  in snout;  
maxillary reaches orbit or  
eye, length  $2\frac{1}{2}$  to  $2\frac{7}{8}$  in head  
from snout tip; tongue broadly  
curvate; teeth finely or  
minutely villiform, in bands  
in jaw with upper anteriorly  
3 times wider than lower band,  
also 2 narrow well spaced  
parallel bands on vomer and  
similar though greatly longer  
band on each palatine;  
interorbital narrow, width  
 $3\frac{3}{4}$  to  $3\frac{7}{8}$  in orbit, deeply



concave. Gill rakers  $2 + 5$ , lanceolate, equal gill filaments or 2 in orbit.

No nasal spines; rather strong, moderate, antero-supraorbital spine; postero-supraorbital ridge with 5 subequal spines, then each with 3 divergent keels, followed by pair of parietal and occipital ridges and each ending in spine behind; small, short supraoccipital keel; strong postocular spine, followed by 5 keels, each ending in spine and posterior as suprascapular; 2 lateral keels each side of head, upper as suborbital stay with preorbital spine, spine below



1952  
front of eye and another below  
hind part of eye; 2 strong  
spines at preopercular angle,  
upper twice long as lower or  
 $1\frac{3}{4}$  in orbit; 2 opercular spines,  
lower advanced and with  
long beel forward above;  
strong spine above pectoral  
axil.

Scales 92 to 100 + 8 or 9 in  
lateral line; tubular scales  
47 or 48 + 3 in lateral line;  
9 scales above, 17 or 18 below;  
12 predorsal. Head largely  
scaly above, except on muzzle.  
Scales much smaller on chest,  
breast and belly than on  
sides of body. Caudal base  
scaly. Scales with 6 to 9 basal



1953

radiating striae; 16 to 37  
apical denticles, short,  
slender, with 3 to 8 transverse  
series of basal elements;  
circuli fine, basal, coarser  
apically.

D. IX - I, 10, I, third spine  
 $2\frac{1}{4}$  to  $2\frac{2}{5}$  in total head  
length, first branched ray  
 $2\frac{1}{4}$  to  $2\frac{2}{5}$ , fin edge well  
notched behind each ray;  
A. 11, I, fin edge well notched  
behind end of each ray, third  
ray  $3\frac{1}{2}$  to 4; caudal  $1\frac{4}{5}$  to 2,  
convex behind; pectoral  $1\frac{4}{5}$  to  
 $1\frac{7}{8}$ , or  $2\frac{1}{8}$  to  $2\frac{1}{4}$  in depressed  
ventral, rays II, 20; ventral  
rays I, 5, fin reaches to second  
to fourth anal ray base, length  
 $1\frac{1}{8}$  to  $1\frac{1}{4}$  in total head length.



1954

Brown above, with 10 darker, ill defined saddle like blotches, all more or less variegated with numerous obscure whitish spots and blotches. Often very much smaller and more contrasted small black spots scattered irregularly on head and trunk above or become obsolete after middle of tail. Under surfaces of body and head uniformly whitish. Iris whitish. First dorsal blackish on terminal half, basally pale to whitish and some brown spots about front spines. Soft dorsal pale brownish, with 1 to 4 irregular dark brown spots on each ray terminally. Caudal pale, with



4 transverse dark brown bands.  
Paired fins pale, each with 5  
to 7 transverse series of dark  
brown spots.

East Indies, Philippines.

The materials listed below  
all seem to belong to the present  
species, credited as "L. lat.  
110" by Günther in 1860. The  
dark dots on the upper  
surfaces are not always  
present ~~and~~ are very  
variable, likewise the white  
spots.



1956

13882. Matnog Bay.

May 31, 1909. Length 181 mm.

9550. Santiago River,  
Pagapas Bay, Luzon. February  
20, 1909. Length 186 mm.

5852. Small stream at  
San Roque, Leyte. July 28, 1909.  
[1321.] Length 258 mm.

20544. Tilig, Lubang  
Island. July 14, 1908. Length  
148 mm.



1957

Genus Cocius Jordan and Hubbs

Cocius Jordan and Hubbs, Mem.  
Carnegie Mus., vol. 10, p. 286,  
1925. (Type Platycephalus  
crocodilus Tilesius, orthotypic.)



Opercular margin with a  
membranous flap below pre-  
opercular spines; spine near  
~~center~~ of preorbital obsolete  
(rarely developed on one side).  
Main preopercular spine short,  
 $\frac{1}{3}$  of orbit or shorter. Scales  
58 to 60 + 6. Soft dorsal and  
anal with 12 rays.



1959

Cocinus crocodilus (Tilesius).

Platycephalus crocodilus Tilesius,

Reise Krusenstern, pl. 59, fig. 2,

1812 (type locality, Nagasaki).

— Cuvier, Hist. Nat. Poiss., vol.

4, p. 256, 1829 (on Krusenstern).

— Schmeltz, Cat. Mus. Godeffroy,

no. 7, p. 44, 1879 (Peleo Islands).

— Jordan and Snyder, Annot.

Zool. Japon., vol. 3, p. 105, 1901  
(reference).



1960

Thysanophrys crocodilus Jordan  
and Richardson, Philippine Journ.  
Sci., p. 53, 1910 (reference). —  
Frang, Abhandl. Bayer. Akad.,  
vol. 4, Suppl. Band 1, p. 78,  
1910 (Aburatsubo; Fukuura).  
— Fowler, Proc. Acad. Nat. Sci.  
Philadelphia, vol. 79, p. 289,  
1927 (Philippines); Journ.  
Bombay Nat. Hist. Soc., vol.  
33, no. 1, p. 116, Sep. 30, 1928  
(Bombay); Mem. Bishop Mus.,  
vol. 10, p. 300, 1928 (copied); vol.  
11, no. 5, p. 350, 1931 (reference);  
vol. 11, no. 6, p. 431, 1934 (New  
Hebrides); Proc. Acad. Nat. Sci.  
Philadelphia, vol. 86, p. 488, 1934  
(Katal); vol. 87, p. 153, 1935  
(Sriracha, Siam).



1961

Platycephalus punctatus Cuvier,  
Hist. nat. Poiss., vol. 4, p. 243, 1829  
(type locality, Trinquemale,  
Ceylon; Vanicoro). — Duoy and  
Gaimard, Voy. Astrolabe, Zool.,  
vol. 3, p. 682, ~~pl. 10~~ (not pl. 10, fig. 2),  
1834 (Vanicoro). — Bleeker,  
~~Batavia~~ Verh. Batavia. Genoot.  
(hal. Ichth. Bengal), vol. 25, p. 34,  
1853 (reference); (hal. Ichth.  
Japan), vol. 26, p. 5, 1857  
(Nagasaki); Nat. Tijds. Ned.  
Indie, vol. 1, ~~1850~~ p. 25, 1850  
(Batavia); vol. 3, p. 444, 1852  
(Banka); vol. 4, p. 92, 1853  
(Amboina); vol. 7, p. 311, 1854  
(Bantem); vol. 11, p. 418, 1856  
(Muntok, Banka); vol. 12, p. 213,  
1856 (Nias); Verh. Batavia.  
Genoot. ←



Ned. Soc. Sci. Ind. Neerl., vol.  
2, no. 7, p. 4, 1857 (Amboina);  
vol. 3, no. 3, p. , 1857-58  
(Japan); vol. 3, no. 9, p. 5, 1857-  
58 (Siboga, Sumatra). —  
Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 180, 1860 (reference).

— Bleeker, Verslag. Kon. Akad.  
Wet. Amsterdam, vol. 12, p. 32,  
1861 (Singapore).

— Day, Fishes of India, pt. , p.  
277, pl. 60, fig. 3, 1877.

— Bleeker, Atlas Ichth. Ind.  
Neerl., vol. 9, pl. 418 (1), fig. 4,  
1877; Verh. Kon. Akad. Wet. Amsterdam,  
vol. 19, no. 2, p. 13, 1879 (Sumatra,  
Nias, Pinang, Singapore, Banca,  
Java, Ceram, Amboina, Philippines).



— Günther, Rep. Voy. Challenger,  
vol. 1, pt. 6, p. 66, 1880 (Inland  
Sea of Japan).

— Steindachner and Döderlein,  
Denks. Akad. Wiss. Wien, math.-  
naturw. Kl., vol. 53, pt. 1, p. 258, 1887  
(Japan); Ann. Hofmus. Wien, vol.  
11, p. 207, 1896 (Japan).

— Ishikawa and Matsuura, Cat. Mus.  
Tokyo, p. 48, 1897.

— Jordan and Seale, Bull. Bur.  
Fisher., vol. 20, p. , 1906 (Cavite).

— Whitley, Jour. Pan. Pac. Res. Inst.,  
vol. 3, No. 1, p. 12, Jan. - March 1928  
(Santa Cruz Islands).



25.137. A. N. S. P. Padana, Sumatra.  
A. C. Harrison and H. L. Miller. Length 378  
mm. When fresh in arrack largely faded  
yellow. Nine blackish brown longitudinal  
bands on sides and above much wider  
than pale interspaces, below much  
narrower. Edges of dorsal and caudal  
black and both fins like anal marked  
with large blackish brown spots; on  
spinous dorsal form series along basal  
portion of fin; on soft dorsal series  
of about 10, which become median  
posteriorly; on anal arranged in several  
irregular series and about 10; soft  
anal tip black. On caudal number of  
black spots form 3 irregular series.  
Pectoral yellowish, uniform, with oblique  
blackish brown basal cross bar, axil  
dark. Ventral uniform yellowish, inside  
basally deep orange red. As Plectorhynchus  
sebae. ♂



Platycephalus malabaricus Cuvier,  
Hist. nat. Poiss., vol. 4, p. 245, 1829  
(type locality, Mahe). —  
Bleeker, Verh. Batavia. Genoot.  
(Nal. Ichth. Bengal), vol. 25, p. 34,  
1853 (reference). — Day, Fishes  
of Malabar, p. 45, 1865. — Kner,  
Reise Novara, Fische, p. 121, 1866  
(Hong Kong; Java). — Günther,  
Rep. Voy. Challenger, vol. 1, pt. 6,  
p. 41, 1880 (Arafura Sea in S.  
lat.  $9^{\circ}59'$ , E. long.  $139^{\circ}42'$ , in 28  
fathoms). — Gilchrist and  
Thompson, Ann. South African  
Mus., vol. 6, p. 253, 1908-10 (Durban).  
— Fowler, Proc. Acad. Nat. Sci.  
Philadelphia, vol. 77, p. 255, 1925  
(Tugela River in 60 fathoms, Natal).



1964  
Thysanophrys malabaricus Jordan  
and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 630, 1908 (name  
only).



# Analysis of the species

a.<sup>1</sup> Pseudopristipoma. Scales 50 to 60 in lateral line; spinous dorsal strongly notched along margin, fin XIII or XIV, 16 to 18; A. III, 7. nigrus

a.<sup>2</sup> Plectorhinchus. Scales 70 to 90 in lateral line.

b.<sup>1</sup> Body with dark or black longitudinal bands, persistent with age.

c.<sup>1</sup> Fins without dark spots or bands; ground color gray or brown.

d.<sup>1</sup> Dark bands on body horizontal and parallel.

e.<sup>1</sup> Eight uniformly golden longitudinal bands on head and body (several yellow longitudinal bands on dorsals in young, fading with age). faetela

e.<sup>2</sup> Five to nine longitudinal bands on head and body, each with narrow bordering black line; fins yellow. polytaenia



Platycephalus clavulatus Cantor,  
Journ. Asiatic Soc. Bengal, vol.  
18, pt. 1, p. 1020, 1849 (1850) (type  
locality, Sea of Pinang).

Platycephalus fasciatus Günther,  
Ann. Mag. Nat. Hist., London,  
ser. 4, vol. 10, p. 397, 1872 (type  
locality, Manila). — Elera,  
Cat. Fauna Filipinas, vol. 1, p. 498,  
1897 (Luzon; Manila Bay).

2  
U



Depth  $8\frac{1}{3}$  to  $8\frac{1}{2}$ ; head  $2\frac{4}{5}$  to  $2\frac{9}{10}$ , width  $1\frac{9}{10}$  to 2. Snout 3 in head from snout tip; eye  $5\frac{7}{8}$  to  $6\frac{1}{4}$ , 2 in snout, 2 times bony interorbital; orbit  $4\frac{7}{8}$  to 5 in head from snout tip,  $1\frac{1}{2}$  in snout; maxillary reaches below front edge of pupil or eye, length  $2\frac{2}{3}$  to  $2\frac{3}{4}$  in head from snout tip; teeth finely villiform, in bands in jaws, of which anterior upper 2 or 3 times broad as lower; narrow band of vomerine teeth on each side and long band on each palatine; interorbital width 2 to  $2\frac{1}{2}$  in orbit, deeply concave. Gill rakers 2 + 4, lanceolate; gill filaments  $\frac{7}{8}$  of longest gill rakers, which 2 in orbit.



1967

no nasal spines; pair of  
anterior - supraorbital spines,  
rather large and postero -  
supraorbital spines in row of  
6 each side, last largest,  
then 3 or 4 diverging beels and  
finally parietal and occipital  
beel, each ending in spine;  
rather large postorbital spine,  
then row of 5 beels, each  
ending in spine and last  
forming suprascapular; 2  
beels on side of head,  
upper as suborbital stay,  
with small spine at preorbital,  
another just before middle  
of eye and third below hind  
edge of orbit; 2 spines at  
preopercle angle, upper large  
and with small antero-basal  
one,  $1\frac{3}{4}$  in orbit; lower preopercular



1968

spine  $\frac{2}{5}$  of upper, directed down and back; 2 opercular spines, lower advanced and with long beel forward superiorly; strong spine on humerus.

Scales 80 to 85 + 5 or 6 in lateral line; 44 to 48 + 3 to 4 tubular scales in lateral line; 10 or 11 scales above, 18 to 20 below; 14 or 15 predorsal. Scales on chest and breast little smaller than lateral scales. Caudal with nearly basal half scaled. Head, posterior to eyes above, scaly. Scales with 4 to 7 basal radiating striae; 22 to 27 apical denticles, with 6 or 7 transverse series of basal elements;



1969

circuli fine, coarser apically.

D. IX - I, 10, I, third spine  
 $2\frac{1}{6}$  to  $2\frac{1}{5}$  in total head length,  
first branched ray  $2\frac{3}{5}$  to  $2\frac{7}{8}$ ,  
fin edge behind each ray tip  
rather deeply notched; A.  
11, I, third ray  $4\frac{1}{4}$  to  $4\frac{1}{2}$ , fin  
edge rather well notched  
behind each ray tip; caudal  
 $1\frac{9}{10}$  to 2, rounded behind;  
least depth of caudal peduncle  
7 to  $7\frac{1}{4}$ ; pectoral  $2\frac{1}{2}$  to  $2\frac{3}{5}$ ,  
rays I, 19, reaches 2 in depressed  
ventral; ventral rays I, 5, fin  
 $1\frac{1}{2}$  to  $1\frac{3}{5}$  in total head length.

Gray brown above, with 7  
or 8 transverse dark brown  
bands; first from lower front  
orbital edge and other from  
lower eye edge, third crosses  
head at opercles, fourth at



predorsal, fifth behind spinous dorsal, sixth and seventh at soft dorsal and eight at caudal peduncle posteriorly. Iris pale or yellowish white. Spinous dorsal - gray, blackish terminally. Soft dorsal pale, with 3 to 7 dark spots on each ray, of which upper 2 usually much darker. Anal pale or whitish, with brownish marginally. Caudal brown, with 4 black, horizontal bands, at least on greater outer part of fin. Paired fins gray brown, pectorals little paler above and spotted with dark brown.

Katal, Ceylon, India, Siam, East Indies, Malaya, Philippines, Japan, Melanesia, Micronesia, China,



A handsome species and very like Platycephalus quoyi, but the scales larger and the much shorter ventrals usually not reaching the anal. The caudal is very distinctively marked with black horizontal bands. I have not seen any specimens with the caudal like that shown in Bleeker's figure of Platycephalus punctatus.



1972

22140, 22141. ~~D.~~ D. 5461. Caringo  
Island (W.), N.  $12^{\circ}$  W. 4.9 miles  
(h. lat.  $13^{\circ} 57' 42''$ , E. long.  $123^{\circ}$   
 $6' 42''$ ), in 11 fathoms.  
June 14, 1909. Length 135 to  
177 mm.

4519. D. 5346. Cliff Island,  
S.  $37^{\circ}$  E., 4.6 miles (h. lat.  $10^{\circ}$   
 $50' 30''$ , E. long.  $119^{\circ} 22' 20''$ ),  
Palawan. In 7 fathoms.  
December 26, 1908. Length 175 mm.

12817, 12818, 12820. Cavite  
and San Roque. June 27, 1908.  
Length 104 to 127 mm.

1761. D. 5342. Endeavour  
Point (S.), S.  $58^{\circ}$  E., 0.5 miles  
(N. lat.  $10^{\circ} 56' 55''$ , E. long.  $119^{\circ} 17'$   
 $24''$ ), Palawan. In 14 to 25  
fathoms. December 23, 1908.  
Length 183 mm.



1973

4948, 4950. Iloilo market.  
March 29, 1908. Length 70 mm.

20700, 20701. Manila Harbor.  
March 16, 1908. Length 108 to 110 mm.

10664. Manila market. June 17, 1908. Length 205 mm.

8054, 8055. Manila market.  
March 18, 1908. Length 126 to 142 mm.

4490, 4491. ~~Obs~~ D. 5164.  
Observation Island, S.  $82^{\circ}$  W.,  
8 miles (N. lat.  $5^{\circ} 1' 40''$ , E.  
long. ~~119^{\circ} 52' 20''~~  $119^{\circ} 52' 20''$ ),  
Tawi Tawi. In 18 fathoms.  
February 24, 1908. Length 145 to 148 mm.

19507. Ragay River tidewater.  
March 10, 1909. Length 218 mm.

20559. Tilig, Lubang. July 14, 1908. Length 105 mm.



20560. Opol, Mindanao.

August 4, 1909. Length 115 mm.

8322. Subig Bay.

January 7, 1908. Length 130 mm.

11668. Kowloon, China. October 5, 1908. Length 173 mm.

U. S. N. M., no. 22570. Japan.  
Japanese Government. Length  
315 mm.

U. S. N. M., no. 38834. Japan.  
Educational Museum of Japan.  
Length 290 mm.

U. S. N. M., no. 57502. Japan.  
P. L. Jouy. Length 188 mm.

U. S. N. M., no. 57558.

Ishushima. P. L. Jouy. Length  
106 to 167 mm. Two examples.

As Insidiator rudis.

U. S. N. M., no. 59654. Yamagawa.  
H. M. Smith. Length 240 mm.  
As Platycephalus punctatus.



U. S. N. M., no. 62317. Unomichi,  
Japan. D. S. Jordan and J. O.  
Snyder. Length 133 mm.

U. S. N. M., no. 62318. Hiroshima.  
D. S. Jordan and J. O. Snyder.  
Length 217 mm.

U. S. N. M., no. 70734, Wakanoura.  
D. S. Jordan and J. O. Snyder.  
Length 210 to 250 mm. Four  
examples.

U. S. N. M., no. 72129. Kagoshima.  
J. O. Snyder and M. S. L. S.  
Bureau of Fisheries.

U. S. N. M., no. 71133. Kagoshima.  
Albatross Collection. Length 88 mm.  
As Thysanophrys meerdervoortii.

U. S. N. M., no. 75448. Naha,  
Okinawa. J. O. Snyder and D. S.  
Jordan. Length 157 mm.

U. S. N. M., no. 75930. Japan?  
P. L. Jouy. Length 136 to 176 mm.  
Two examples. As Thysanophrys  
meerdervoortii.



U. S. N. M., no. 75931. Japan? <sup>1976</sup>

P. L. Jouy. Length 325 mm.

U. S. N. M. (with no. 44143).

Japan. 1878. E. S. Morse.

Length 178 to 234 mm. Three examples.

U. S. N. M. (with no. 75931).

Japan? P. L. Jouy. Length 191 mm.



1977

Cocuis malayanus (Bleeker).

Platycephalus malayanus Bleeker,  
Nat. Tijds. Ned. Indie, vol. 5,  
p. 498, 1853 (type locality, Padang,  
Sumatra); vol. 19, p. 353, 1859  
(Karangbolong, Java); Act. Soc.  
Sci. Ind. Nedl., vol. 2, no. 7, p.  
4, 1857 (Amboina). — Günther,  
Cat. Fish. Brit. Mus., vol. 2, p.  
184, 1860 (copied). — Bleeker,  
Atlas Ichth. Ind. Nedl., vol. 9, pl.  
415 (2), fig. 2, 1877; Arch. Nedl.  
Sci. Nat., Harlem, vol. 13, p. 37,  
1878 (New Guinea); Verh. Kon.  
Akad. Wet., Amsterdam, vol. 19,  
no. 2, p. 27, 1879 (Sumatra;  
Amboina).



Thysanophrys malayanus Jordan  
and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 630, 1908 (name  
only). — Fowler, Mem. Bishop  
Mus., vol. 10, p. 301, 1928 (copied).

Insiadiator malayanus McCulloch,  
Zool. Res. Endeavour, vol. 2, pt. 3,  
p. 140, July 3, 1914 (Murray  
Island, Torres Straits).  
Austral. Mus. Mem., no. 5, pt.  
3, p. 403, Nov. 28, 1929 (reference).

— McCulloch and Whitley, Mem.  
Queensland Mus., vol. 18, pt. 2, p.  
164, July 7, 1925 (reference). —  
McCulloch,



Sugggrundus bosschei (Bleeker)

Platycephalus bosschei Bleeker,  
Nat. Tijds. Ned. Indie, vol. 21,  
p. (138) 140, 1860 (type locality,  
Muntok, Banca).



1979

Depth 7 to  $8\frac{1}{4}$ ; head  $2\frac{2}{3}$  to  $3\frac{1}{8}$ ,  
width  $1\frac{1}{2}$  to  $1\frac{4}{5}$ . Snout 3 to  $3\frac{1}{8}$   
in head from snout tip; eye 5,  
 $1\frac{2}{3}$  to  $1\frac{3}{4}$  in snout, 2 to  $3\frac{1}{4}$  times  
interorbital width; orbit  $4\frac{1}{4}$  to  
 $4\frac{1}{2}$  in head from snout tip,  $1\frac{1}{3}$  in  
snout; maxillary reaches front  
edge of orbit, length  $2\frac{2}{5}$  to  $2\frac{4}{5}$   
in head from snout tip; teeth  
minutely villiform, in bands on  
jaws, of which upper much  
wider anteriorly; 2 rather short  
parallel patches on vomer and  
long narrow band on each  
palatine; interorbital 4 in orbit,  
deeply concave. Gill rakers 1+5,  
and 5 or 6 low asperous tubercles  
above and below, subequal with  
gill filaments or 3 in orbit.  
Pair of small spines between



front nostrils; large, strong  
antero-supraorbital spine  
and supraorbital ridge  
posteriorly with 9 serrae and  
then row of 5 more, followed  
by 3 more pairs of keels each  
ending in spine behind, of  
which last or occipital smallest;  
2 rows of postocular spines,  
upper very short and of only  
1 or 2 small spines, lower of 6  
keels, each ending in spine  
behind and last suprascapular;  
2 keels laterally, upper as  
suborbital stay, edge denticulate,  
with 7 to 9 variable denticles;  
large spine at preopercular  
angle  $1\frac{1}{3}$  in orbit, without  
anterior basal spine in front,  
though 2 short ones directed  
back below, and lower of these



1981

quite small; edge of opercle  
with broad cutaneous flap  
below preopercular spines;  
opercular spines 2, lower in  
advance; strong humeral  
spine.

Scales 50 or 51 + 5 in lateral  
line; 5 or 6 above, 15 or 16 below;  
10 or 11 predorsal forward to  
occiput. Scales on breast and  
belly greatly smaller than  
others, none on prepectoral.  
Caudal base with small scales.  
Head scaly above behind eyes.  
Scales with 5 or 6 basal  
radiating striae; 40 to 56 short  
apical denticles, with 6 to 8  
transverse series of basal elements;  
circuli very fine, coarser  
apically.



1982

D. VIII or IX — I, 10, I or I, 11, I,  
third spine 2 in total head length,  
first branched ray 2 to  $2\frac{2}{5}$ ; A.  
12, I, third ray  $3\frac{1}{8}$  to 4; caudal  
 $1\frac{3}{4}$  to  $1\frac{4}{5}$ , convex behind; least  
depth of caudal peduncle  $5\frac{4}{5}$   
to  $8\frac{3}{4}$ ; pectoral  $1\frac{7}{8}$  to  $2\frac{1}{3}$ ,  
rays I, 20, fin reaches 2 to  $2\frac{1}{8}$   
in depressed ventral; ventral  
rays I, 5, fin reaches base of  
fourth anal ray, length  $1\frac{1}{5}$  to  $1\frac{2}{5}$   
in total head length.

Light brown above with 5 or  
6 transverse darker brown  
bands, and alternating  
narrower and slightly paler  
bands in pale interspaces.  
Whole upper surface marbled  
and obscurely mottled or  
variegated with paler shades,



some nearly whitish. On side of head several dark bars radiated from eye. Under surfaces whitish, spinous fin with brownish apically, and each spine with brown spots. Soft dorsal with rays spotted. Caudal rays similar, so as to form 5 or 6 dark cross bands. Anal white. Paired fins whitish, with 6 to 8 dark spots on each ray, less distinct on ventral or absent basally. Iris whitish.

Queensland, Philippines.

East Indies. The materials below agree largely with Bleeker's figure of Platycephalus malayanus.



6525. Cebu market. April 5, <sup>1904</sup>  
1908. Length 178 mm.

4467. D. 5235. Hagubut  
Island (S.), S.  $58^{\circ}$  W., 7 miles  
(N. lat.  $9^{\circ}43'$ , E. long.  $125^{\circ}48'$   
 $15''$ ), east coast of Mindanao.  
In 44 fathoms. May 9, 1908.  
Length 180 mm.

20120. Ulugan Bay near  
mouth of Baheli River, Palawan.  
December 28, 1908. Length 110 mm.



1985

Cocinus bobosok (Bleeker)

Platycephalus bobosok Bleeker,  
Nat. Tijds. Ned. Indie, vol. 4, p.  
461, 1853 (type locality, Batavia,  
Java); vol. 10, p. 346, 1856 (Rio,  
Bintang); vol. 18, p. 361, 1859<sup>449</sup>,  
(Blingi, Banka); vol. 20, p. 237,  
1859-60 (Singapore) ~~if~~ —  
Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 189, 1860 (copied). —  
Bleeker, Verslag. Kon. Akad. Wet.  
Amsterdam, Ser. 2, vol. 2, p. 293,  
1868 (Rio, Bintang); Atlas  
Ichth. Ind. Néerl., vol. 9, pl. (3)  
420, fig. 5, 1877; Verh. Kon. Akad.  
Wet. Amsterdam, vol. 19, no. 2,  
p. 23, 1879 (Singapore, Bintang,  
Banka, Java, Celebes).



— Jordan and Richardson, Proc. U.S.  
Nat. Mus., vol. 33, p. 630, 1908 (name  
only).



Diagramma amabile Kent<sup>1</sup> and

<sup>1</sup> Great Barrier Reef, 1873, p. 369.

Queensland.

Diagramma amicium Kent<sup>2</sup> are

<sup>2</sup> Op. cit., 1873, p. 369. Queensland.

two names not possible to place.

Diagramma umbrinum Klunzinger<sup>3</sup>

<sup>3</sup> Verh. zool. bot. Gesell. Wien, vol. 20,

1870, p. 736. Koseir, Red Sea; Fische

Roth. Meer., 1884, p. 31, pl. 3, fig. 9.

is based on an identifiable young fish:

depth  $2\frac{1}{2}$ ; head  $2\frac{7}{8}$ . Snout  $3\frac{1}{3}$  in head; eye 3, little greater than snout; maxillary reaches  $\frac{1}{4}$  in eye, leaving narrow infraorbital width about  $\frac{1}{2}$  of maxillary expansion, length 3 in head;



1987  
Platycephalus maculosus Peters,  
Monatsh. Akad. Wiss. Berlin,  
p. 258, 1868.



Depth  $7\frac{1}{4}$  to  $7\frac{1}{3}$ ; head  $2\frac{3}{4}$  to  $2\frac{7}{8}$ ,  
 width  $1\frac{1}{2}$  to  $1\frac{2}{3}$ . Snout  $3\frac{1}{4}$  to  
 $3\frac{1}{2}$  in head from snout tip; eye  
 $4\frac{2}{5}$  to 5,  $1\frac{1}{3}$  to  $1\frac{2}{5}$  in snout,  
 $3\frac{3}{4}$  to 4 times interorbital  
 width; orbit  $3\frac{7}{8}$  to 4 in head  
 from snout tip, subequal with  
 snout; maxillary reaches eye  
 or  $\frac{1}{5}$  in eye, length  $2\frac{2}{5}$  to  $2\frac{4}{5}$   
 in head from snout tip; teeth  
 villiform, minute, in bands in  
 jaws and upper anteriorly  
 nearly twice width of lower; 2  
 short, parallel patches on vomer,  
 and long narrow band on each  
 palatine; interorbital  $4\frac{1}{2}$  to  
 5 in orbit, deeply concave.  
 Gill rakers 1 + 5, clavate,  $1\frac{3}{4}$   
 in gill filaments, which  $3\frac{1}{4}$   
 in orbit; also 6 upper and 8



1989

lower short asperous rudimentary  
tubercles. ~~Two pairs of clo~~

Two pairs of close-set  
internasal spines; strong antero-  
supraorbital spine, Then  
serrated supraorbital ridge  
of 10 even spines, followed by  
pair of coronals, parietals  
and occipitals; row of 6  
postocular spines, last or  
suprascapular largest; side of  
head with 2 ridges, upper or  
suborbital stay with row of 5  
spines, first preorbital, second  
nearly opposite middle of eye  
and third below hind orbital  
edge; preopercle angle with  
strong spine 2 in orbit, with  
prebasal small spine on outer  
edge, also 2 small spines below



1990

on preopercle edge with lower smaller, edge of opercle with moderate cutaneous lobe below; 2 rather close set opercular spines, lower advanced; strong, short humeral spine.

Scales 55 to 77 + 4 in lateral line; tubular scales 43 to 51 + 3 or 4 in lateral line; first 2 scales in lateral line each with small spine; 7 above, 16 below; 14 predorsal forward to occipital spines. Small scales on chest, breast, belly, prepectoral and caudal base. Head scaly above behind eyes. Scales with 6 to 10 basal radiating striae; 26 or 27 slender apical denticles, with 2 to 6 transverse series of basal elements; circuli fine, coarser apically.



D. IX - 11, I, third spine  $2\frac{1}{3}$   
to  $2\frac{1}{2}$  in total head length,  
second branched ray  $2\frac{1}{3}$  to  $2\frac{3}{4}$ ;  
A. 12, I, third ray 4 to  $4\frac{4}{5}$ ;  
caudal  $1\frac{2}{3}$  to  $1\frac{3}{4}$ , convex behind,  
least depth of caudal peduncle  
 $7\frac{4}{5}$  to 8; pectoral 2 to  $2\frac{1}{8}$ ,  
rays I, 16, reaches  $1\frac{2}{3}$  in  
ventral; ventral not reaching  
anal or only to anal origin,  
length  $1\frac{3}{5}$  to  $1\frac{3}{4}$  in total  
head length, rays I, 5.

Brown above; with dark  
band between eyes and over  
cheek, narrow one at occipital  
spines to preopercular spines,  
one at front of spinous dorsal  
and another at its hind part  
much darker, another at  
middle of soft dorsal and



finally narrower one on caudal peduncle posteriorly; narrower and less conspicuous band across each paler interval. Bands all more or less variable on sides of body, where broken as dark blotches, besides very variable additional dark blotches or spots. Four dark brown blotches along side of muzzle, last at front of eye. Iris silver white. Under surfaces all whitish. Fins pale generally, spinous dorsal with dark to transverse blackish waved bars or bands ~~transversely~~ terminally. Dorsal rays with 6 or 7 dark spots, which may extend on membranes. Caudal with 6 or



7 dark transverse bands,  
mostly made up of spots  
on fin rays. Anal white,  
with scattered dark spots  
on fin terminally. Pectoral  
whitish, spotted with brown.  
Ventral whitish, terminally  
with variable brown spots.

Malaya,

East Indies, Philippines.

Characteristic of this species  
is its far more contrasted  
coloration than shown by  
Bleeker. All examples show a  
conspicuous dark blotch on the  
lower subbasal part of the  
pectoral in addition to the  
usual spots. My materials  
agree with Bleeker's figure,  
except that they show but a  
single pair of internasal spines



1994

between the posterior nostrils.  
His profile figure shows  
apparently at least 4 serrae.

19335, 19989, 20218.

Sandakan Bay, Borneo. March  
2, 1908. Length 93 to 139 mm.  
Eight examples.

5267. Sandakan Bay.  
March 21, 1908. Length 102 mm.



Cocculus nigripinnis (Regan)

Platycephalus nigripinnis Regan,  
Journ. Bombay Nat. Hist. Soc.,  
vol. 16, no. 2, p. 322, pl. A, fig. 2,  
1905 (type locality, Muscat,  
in 15 to 30 fathoms).

width  $1\frac{3}{5}$

Depth 6; head 3, snout  $3\frac{2}{3}$   
in head from snout tip; eye  
 $4\frac{1}{4}$ ,  $1\frac{1}{6}$  in snout; maxillary  
reaches  $\frac{1}{4}$  in eye, length  $2\frac{2}{3}$  in  
head from snout tip; interorb-  
ital  $7\frac{1}{2}$ . Upper surface of  
head flattish, with ridge  
not or very feebly serrated,  
not distinctly spinate.

Preopercle with 3 spines, upper  
 $1\frac{1}{3}$  times in distance from its  
base to eye.

Scales 80 in a longitudinal  
series; only anterior 10 to 12



1996

scales of lateral line distinctly  
spinate; 9 scales below lateral  
line.

D. IX, 12, third spine  $2\frac{1}{3}$   
in total head length, second  
ray  $2\frac{2}{5}$ ; A. 12, third ray  
 $3\frac{1}{8}$ ; caudal  $2\frac{1}{10}$ , truncate;  
least depth of caudal peduncle  
 $7\frac{1}{5}$ ; pectoral  $2\frac{1}{4}$ , reaches  $\frac{1}{2}$   
to anal origin, rays I, 19;  
ventral rays I, 5, fin  $1\frac{1}{4}$  in  
total head length, reaches a  
little beyond anal origin.

Side of body with 5 or 6  
indistinct dark blotches or  
bars. Fins blackish, anal  
pale at base and with narrow  
light edge. Length without  
caudal 165 mm. (Regan.)

Arabia.



1997

Genus Sugggrundus Whitley

Sugggrundus Whitley, Mem.  
Queensland Mus., Vol. 10, pt. 1,  
p. 26, Aug. 28, 1930. (Type  
Platycephalus rudis Günther.  
Virtually, as Sugggrundus  
Whitley proposed to replace  
Insidiator Jordan and Snyder.)

Insidiator (not Oken 1817)  
Jordan and Snyder, Proc. U. S.  
Nat. Mus., vol. 23, p. 368, Dec. 10,  
1900. (Type Platycephalus rudis  
Günther = Platycephalus  
meerderwoortii Bleeker, orthotypic.)

Reptotrudis Whitley, op. cit. (Type  
Platycephalus macracanthus  
Bleeker, orthotypic.)



Body long, greatest depth  
little less than width. Head  
moderately long, well depressed,  
profile nearly equilateral  
triangle as seen from above.  
Snout broadly depressed.  
Eye with very large orbital  
socket, little advanced. Mouth  
broad, mandible well protruded.  
Vomer with 2 parallel patches  
of teeth and long band on each  
palatine. Head with strong  
spines, though ridges not  
especially conspicuous. ~~and no  
others at front edge of eye~~  
Two keels on side of head,



Genus Platycephalus



1999

only upper on suborbital stay  
armed. Single antero-supra-  
orbital spine and no other  
at front edge of eye. Two  
keels on side of head, only  
upper or suborbital stay  
armed. Preopercle angle with 3  
spines, also upper enlarged  
ones with small prebasal ex-  
ternal spine. Gill rakers few.  
Scales moderate, ctenoid, in  
oblique rows on sides. Lateral  
line without spinescent keel.  
Cutaneous flap below preopercle  
spine. Cranium with radiating  
striae. Dorsals well separated,  
first fin higher. Margins of  
membranes of dorsal and  
anal soft fins each well notched  
behind tip of each ray and



anal extends well behind end<sup>2000</sup>  
of soft dorsal. Caudal moderate.  
Pectoral short, pointed, with  
lobe above. Ventral moderate.



# Analysis of Species

a.<sup>1</sup> Eye smaller and round; interorbital space equals vertical eye diameter.

b.<sup>1</sup> Depth 6 to 7. bossche.

b.<sup>2</sup> Depth 8 to 9. meerdervoortii.

a.<sup>2</sup> Eyes larger, elliptical; inter-orbital space less than vertical eye diameter.

c.<sup>1</sup> First third of lateral line with distinct, upstanding spines.

d.<sup>1</sup> Upper preopercular spine very large, long as eye. macracanthus.

d.<sup>2</sup> Upper preopercular spine shorter than eye. ~~jugosus~~ jugosus.

c.<sup>2</sup> First third of lateral line with indistinct prostrate spines. harrisii.

c.<sup>3</sup> Only few anterior scales of lateral line with spines.

e.<sup>1</sup> Infraorbital ridge expanded outwards posteriorly; overhangs cheeks. tuberculatus.  
e.<sup>2</sup> Infraorbital ridge not overhanging cheeks posteriorly. jugosus.



2002  
f.<sup>1</sup> Palatine teeth en-  
larged, cardiform.  
diversidens.

f.<sup>2</sup> Teeth villiform.  
parilus.



Head broad, greatly depressed.  
Teeth usually villiform, some-  
times cariniform, bands on  
jaws and on palatines; 2  
separate groups on vomer,  
which are set lengthwise on  
shaft of bone. Dorsals of  
head well developed, also  
serrations. Preopercle angle  
with 2 or 3 spines, upper  
largest. No preopercular spine  
on under face of head. Scales  
large 30 to small (40). Lateral  
line smooth or armed with  
spines, partially or for its whole  
extent.



Sugggrundus bosschei (Bleeker)

Platycephalus bosschei Bleeker,  
 Nat. Tijds. Ned. Indië, vol. 21,  
 p. 138, 1860 (name only); Atlas  
 Ichth. Ind. Néerl., vol. 9, pl. (2)  
 419, fig. 3-a, 1877; Verh. Kon.  
 Akad. Wet. Amsterdam, vol. 19,  
 no. 2, p. 16, 1879 (Banka). — McCulloch, Austral. Mus. Mem.,  
 no. 5, pt. 3, p. 402, no. 28, 1929  
 (reference).

Platycephalus bosschei Bleeker,  
 Nat. Tijds. Ned. Indië, vol. 21, p.  
 141, 1860 (type locality, Muntok,  
 Banka).



2004

Thysanophrys bosschei Jordan  
and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 630, 1908 (name  
only).

Inidiator bosschei McCulloch,  
Zool. Res. Endeavour, vol. 2, pt. 3,  
p. 139, July 3, 1914 (Macleay's  
material). — McCulloch and  
Whitley, Mem. Queensland Mus.,  
vol. 8, pt. 2, p. 164, July 7, 1925  
(reference).



Platycephalus isacanthus (not  
Cuvier) Macleay, Proc. Linn. Soc.  
New South Wales, vol. 5, p. 585,  
1881 (Port Darwin; Palm Islands;  
Cape Grenville).



Sugggrundus meerdervoortii (Bleeker)

Platycephalus meerdervoortii

Bleeker, Act. Soc. Sci. Ind. Neerl.,  
(Jap.) vol. 8, p. 80, pl. 1, fig. 3,  
1860 (type locality, Kagasaki;  
Yedo); Verslag. Kon. Akad. Wet.,  
Amsterdam, Ser. 2, vol. 3, p.  
238, 1869 ( ); Verh.  
Kon. Akad. Wet. Amsterdam,  
vol. 18, (no. 6), p. 12, 1879 (reference).

Thysanophrys meerdervoortii

Jordan and Richardson, Proc.  
U. S. Nat. Mus., vol. 33, p. 635,  
1908 (Wakanoura; Shimizu).



2007

Thysanophrys meerdervoorti  
Franz, Abhand. Bayer. Akad.  
~~Wiss.~~ Wiss., vol. 4, Suppl. band  
1, p. 78, 1910 (Aburatsubo).

Platycephalus rudis Günther,  
Rep. Voy. Challenger, vol. 1, pt. 6,  
p. 66, pl. 29, fig. 13, 1880 (type  
locality, market of Yokohama).  
— Steindachner and Döderlein,  
Denks. Akad. Wiss. Wien,  
math.-naturw. Kl., vol. 53, pt. 1,  
p. 260, 1887 (Tokyo).

Insidiator rudis Jordan and  
Snyder, Proc. U. S. Nat. Mus.,  
vol. 23, p. 368, 1900 (Tokyo).



2008

Depth  $7\frac{4}{5}$  to  $9\frac{1}{2}$ ; head  $2\frac{3}{4}$  to  $2\frac{4}{5}$ ,  
width  $1\frac{3}{5}$  to  $1\frac{4}{5}$ . Snout  $3\frac{1}{8}$  to  
 $3\frac{1}{4}$  in head from snout tip;  
eye 5 to  $5\frac{2}{5}$ ,  $1\frac{3}{5}$  to  $1\frac{2}{3}$  in snout;  
orbit  $4\frac{1}{3}$  to  $4\frac{3}{5}$  in head from  
snout tip,  $1\frac{1}{4}$  in snout;  
maxillary reaches  $\frac{1}{4}$  to  $\frac{1}{5}$  in  
eye, length  $2\frac{2}{3}$  to  $2\frac{7}{8}$  in head  
from snout tip; teeth minutely  
villiform, in bands in jaws,  
upper in front over twice  
width of lower; 2 broad  
parallel patches of teeth on  
vomer and long narrow band  
on each palatine; tongue  
broadly cuneate; interorbital  
 $2\frac{1}{3}$  to  $2\frac{3}{4}$  in orbit, concave.  
Gill rakers 2 + 7, also 7 low,  
asperous rudimentary tubercles  
above and below; gill filaments







2010

hind orbital edge followed by 3 on opercle; 3 well developed preopercular spines, uppermost largest or  $1\frac{1}{2}$  in orbit and bears anterior outer small basal spine and lowest spine smallest, though but little less than median and well developed; small cutaneous flap below preopercular spines; 2 opercular spines, lower little advanced and with rather long entire beel forward; strong humeral spine.

Scales 74 to 90 + 8 to 10 in lateral line; tubular scales 51 to 56 + 4 to 6 in lateral line of which first 6 to 9 bearing small spine; 8 scales above, 17 below; 11 predorsal.



2011

Small scales on breast, chest, belly, prepectoral region and basal third of caudal. Scales with 4 to 5 basal radiating striae; 23 to 28 slender short apical denticles; circuli fine, coarser apically.

D. IX - I, 10, I, third spine 2 to  $2\frac{1}{4}$  in total head length, first branched ray  $2\frac{1}{8}$  to  $2\frac{2}{5}$ ; A. 11, I, third ray  $3\frac{2}{3}$  to  $3\frac{3}{4}$ ; caudal  $1\frac{3}{4}$  to  $1\frac{4}{5}$ , convex behind; least depth of caudal peduncle  $6\frac{1}{5}$  to  $8\frac{1}{3}$ ; pectoral  $2\frac{1}{5}$  to  $2\frac{1}{4}$ ,  $1\frac{7}{8}$  in depressed ventral, rays II, 20; ventral rays I, 5, fin reaching nearly to base of third anal ray, length  $1\frac{2}{5}$  in total head length.



2012

Back brown, clouded with darker. Scattered small dark brown spots on side of trunk and front of tail laterally, also few on opercles and top of head. Back also with inconspicuous scattered whitish spots. Iris yellowish white. Spinous dorsal with membranes dark gray, more or less clouded blackish terminally. Dorsal pale or whitish with 5 to 7 dark brown spots on each ray. Caudal pale brown with 1 or 2 subbasal and 2 or 3 subterminal dark brown transverse bands, poorly defined, so hind end of fin more or less uniformly dark. Paired fins blackish brown terminally,



2013

with rows of small dark brown spots over most of pectoral. Ventral pale basally and nearly blackish terminally.

Japan. Though the 3<sup>d</sup> preocular spines are always well developed the well armed suborbital stay is also characteristic. Noteworthy is the presence of 3 large spines on its edge over opercle.



2014

U. S. N. M., no. 38814. Boshu,  
Japan. Japanese Museum.  
Length 130 mm.

U. S. N. M., no. 59655. Kochi.  
Dr. H. M. Smith. Length 190 mm.  
As Insidiator rudis.

U. S. N. M., no. 71133. Kagoshima.  
Albatross Collection. Length 87  
mm.

U. S. N. M., no. 72139. Shimizu.  
Albatross Collection. Length 107  
to 168 mm. Three examples.

U. S. N. M., no. 72134. Tokyo.  
Albatross Collection. Length 166  
to 193 mm. Six examples.

U. S. N. M. (one example with  
no. 44143). Japan. 1878. E. E. Morse.  
Length 168 mm.

U. S. N. M. (one example with  
no. 75930). Japan? P. L. Jouy.  
Length 147 mm.



~~Suggmundus~~  
Platycephalus macracanthus  
(Bleeker)

Platycephalus macracanthus  
Bleeker, Verslag. Kon. Akad. Wet.  
Amsterdam, ser. 2, vol. 3, p.  
253, pl., 1869 (type locality,  
Amboina). — Day, Fishes of  
India, pt. 1, p. 276, pl. 59, fig.  
3, 1875 (Madras). — Bleeker,  
Atlas Ichth. Ind. Néerl., vol. 9,  
pl. (2) 419, fig. 1, 1877. — Jordan  
and Seale, Bull. Bur. Fisher.,  
vol. 26, p. 38, 1906 (Manila). —  
Evermann and Seale, Bull. Bur.  
Fisher., vol. 26, p. 103, 1906 (San  
Fabian).  
(— Day, Fauna of British India, vol. 2,  
p. 238, 1889.



Platycephalus macrantibus  
Bleeker, Verh. Kon. Akad. Wet.  
 Amsterdam, vol. 19, no. 2, p. 22,  
 1879 (Amboina) (error).

Thysanophrys macracanthus  
Jordan and Richardson, Philippine  
 Journ. Sci., vol. , p. 53, 1910  
 (reference). — Fowler and Bean,  
 Proc. U. S. Nat. Mus., vol. 62, p. 65,  
 1923 (Takao). — Fowler, Journ.  
 Bombay Nat. Hist. Soc., vol. 33,  
 no. 1, p. 117, Sep. 30, 1928 (Bombay).  
 Proc. U. S. Nat. Mus., vol. 33, p. 630,  
 1908 (name only).



Insidiator macracanthus McCulloch, Zool. Res. Endeavour,  
vol. 2, pt. 3, p. 141, July 3, 1914  
(7 to 20 miles off Bowen, Queens-  
land, 15 to 35 fathoms). Austral.  
Mus. Mem., no. 5, pt. 3, p. 403,  
Nov. 28, 1929 (reference).  
— McCulloch and Whitley, Mem. Queensland  
Mus., vol. 8, pt. 2, p. 164, July 7, 1925  
(reference). — McCulloch,



2018

Depth 6 to 7; head  $2\frac{3}{5}$  to  $2\frac{3}{4}$ ,  
width  $1\frac{3}{5}$  to  $1\frac{7}{8}$ . Snout  $2\frac{4}{5}$  to  
 $3\frac{1}{6}$  in head from snout tip;  
eye 5 to  $5\frac{1}{2}$ ,  $1\frac{3}{5}$  to 2 in snout,  
 $2\frac{1}{8}$  to  $2\frac{2}{3}$  times bony interorbital;  
orbit 4 to  $4\frac{1}{4}$  in head from  
snout tip,  $1\frac{1}{5}$  to  $1\frac{1}{4}$  in head;  
maxillary reaches to or  $\frac{1}{8}$  in  
orbit, length  $2\frac{2}{5}$  to  $2\frac{3}{5}$  in  
head from snout tip; teeth  
minutely villiform, in bands on  
jaw. And upper twice width of  
lower anteriorly; 2 rounded  
parallel patches on vomer and  
each palatine with long narrow  
band; tongue broadly bilobed;  
interorbital  $3\frac{1}{4}$  to  $3\frac{1}{3}$  in orbit,  
evenly to deeply concave. Gill  
rakers 2 or 3 + 6 or 7, and 3 to  
5 more rudimentary asperous



2019

tubercles above and below;  
lanceolate, twice gill filaments  
or  $2\frac{1}{2}$  to 3 in orbit.

Pair of small spines between  
front nostrils; large, strong,  
antero-supraorbital spine,  
then row of 4 postero-supra-  
orbital spines, last largest  
and posteriorly pair of parietal  
spines; several radiating keel  
back to approximated large  
pair of parietal spines, with  
keel direct to them little more  
distinct and its edge irregularly  
and finely serrate; no occipital  
spines; row of 5 postocular  
spines, first small, last 2 large  
close and as suprascapulars;  
one ridge on side of head, forms  
suborbital stay, its lower edge



2020

not beeled, bears 6 spines,  
first preorbital, second below  
front of pupil; strong spine  
at preopercle angle Long as  
eye and bears small outer  
prebasal spine; 2 other spines  
close below on preopercular  
edge, though first very small  
and opercular edge with  
short cutaneous flap below;  
2 opercular spines, wide set  
and lower little advanced;  
strong humeral spine.

Scales 66 or 67 + 6 to 8 in  
lateral line; tubular scales  
49 to 53 + 2 to 4 in lateral  
line, of which 18 first each  
with small spine; 3 above at  
spinous dorsal origin, 7 above  
at soft dorsal origin, 10 below,



8 predorsal forward to occiput. Small scales on chest, breast, and caudal base, none on prepectoral. Head above scaly behind eyes. Scales with 3 to 7 basal radiating striae; 15 to 42 short, slender, apical denticles with 2 to 12 transverse series of basal elements; circuli fine, coarser apically.

D. IX - I, 10, I, or I, 11, I, third spine  $2\frac{1}{4}$  to  $2\frac{1}{2}$  in total head length, second branched ray  $2\frac{2}{5}$  to  $2\frac{3}{5}$ ; A. 12, I, third ray  $4\frac{1}{5}$  to  $4\frac{1}{3}$ ; caudal  $1\frac{3}{4}$  to  $1\frac{4}{5}$ , convex behind; least depth of caudal peduncle  $6\frac{3}{4}$  to  $7\frac{1}{2}$ ; pectoral  $1\frac{9}{10}$  to  $2\frac{3}{5}$ , rays I, 19 to I, 21, fin reaches  $1\frac{2}{5}$  to 2 in ventral;



2022

ventral rays I, 5, fin  $1\frac{4}{7}$  to  $1\frac{2}{3}$  in total head length, reaches anal origin.

Warm brown above, obscurely mottled with darker and paler, and under surfaces whitish. Iris gray. Jaws pale or whitish with 3 or 4 brown spots each side of lips. Fins all pale or whitish generally, with 3 rows of dark brown spots on spinous fin and 3 or 4 on each ray of soft fin. Caudal with 4 or 5 obscure rows of small brown spots on rays. Anal white. Pectoral with 5 rows of brown spots on upper rays, most of fin medially gray brown and edge whitish. Ventral gray



brown subterminally, whitish  
basally.

India, East Indies, Philip-  
pines, China, Formosa.



4410. D. 5181. Antonia Island  
(S.), S.  $63^{\circ}$  W., 6.60 miles (N.  
lat.  $11^{\circ} 36' 40''$ , E. long.  $123^{\circ} 26' 35''$ )  
off Eastern Panay. In 26 fathoms.  
May 27, 1908. Length 91 mm.

2695, 2697. D. 5302. h. lat.  
 $21^{\circ} 42'$ , E. long.  $114^{\circ} 50'$ , China  
Sea, Hong Kong. In 38 fathoms.  
August 9, 1908. Length 200 to 240  
mm.

4384. D. ~~5442~~ 5442. San  
Fernando Point Light, N.  $39^{\circ}$  E.,  
8.4 miles (h. lat.  $16^{\circ} 30' 36''$ , E.  
long.  $120^{\circ} 11' 6''$ ), west coast of  
Luzon. In 45 fathoms. May 10, 1909.  
Length 72 to 170 mm. Three  
examples.



2025

4533. D. 5113. Sombrero Island,  
S.  $7^{\circ}$  W., 9.50 miles (N. lat.  $13^{\circ} 51' 30''$ , E. long.  $120^{\circ} 50' 30''$ ), China  
Sea off Southern Luzon. In  
159 mm. January 17, 1908. Length  
158 mm.

4384. D. 5257. Itara Point,  
Bongo Island, N.  $88^{\circ}$  W., 7.70 miles  
(N. lat.  $7^{\circ} 22' 12''$ , E. long.  $124^{\circ} 12' 15''$ ). In 28 fathoms. May 22,  
1908. Length 115 mm.

U. S. N. M., no. 55932. San  
Sebastian. Bur. of Fisher (3857).  
Length 134 mm.

U. S. N. M., no. 86456. China.  
A. Fowlerby. Length 228 to 229 mm.  
Two examples.

U. S. N. M., no. 76652. Taksao,  
Formosa. Dr. Fred Baker. Length  
46 to 182 mm. Five examples.



2026  
A. N. S. P., one example. Bombay,  
India. Dr. F. Hallberg. Purchased.  
Length 40 mm.



2027

Sugggrundus tuberculatus (Cuvier)

Platycephalus tuberculatus Cuvier,  
Hist. Nat. Poiss., vol. 4, p. 258,  
1829 (type locality, Trincomalee).  
— Günther, Cat. Fish. Brit.  
Mus., vol. 2, p. 186, 1860 (Madras).  
— Day, Fishes of India, pt. 1,  
p. 275, pl. 60, fig. 5, 1875; Fauna  
of British India, Fishes, vol. 2,  
p. 237, 1889 (copied). — Regan,  
Journ. Linn. Soc. London, ser. 2,  
vol. 12, Zool., pt. 3, p. 237, May  
1908 (Kolumdulu, 35 fathoms;  
Haddumati, Maldives, 40  
fathoms).



Sugggrundus tuberculatus

sugggrundus Whitley, Rec.

Austral. Mus., vol. 19, p. 96,

1933 (Platypus Bay, Queensland).

Insiadiator tuberculatus (not

Cuvier) McCulloch, Zool. Res.

Endeavour, vol. 2, pt. 3, p. (138)

142, pl. 29, text fig. 10 (head),

July 3, 1914 (Platypus Bay,  
Queensland, 7 to 9 fathoms;

Day's specimen) Austral. Mus.

Mem., no. 5, pt. 2, p. 403, Nov. 28,

1929 (reference)

McCulloch and Whitley, Mem. Queensland

Mus., vol. 8, pt. 2, p. 164, July 7, 1925 (reference).

— McCulloch,



Sugggrundus jugosus (Mc Culloch)

Insidiator jugosus Mc Culloch,  
Zool. Res. Endeavour, vol. 2, pt. 3,  
p. 144, pl. 30, fig. 2, text fig. 11  
(head), July 3, 1914 (type locality,  
off Hervey Bay, Queensland;  
Bowen; Hummocky Island; 13  
miles south east from Cape  
Capricorn; mouth of Wide Bay);  
Austral. Mus. Mem., <sup>Thop.</sup> ~~vol.~~ 5, pt. 3,  
p. 403, nov. 28, 1929 (reference).

— Whitley and Mc Culloch, Mem.  
Queensland Mus., vol. 8, pt. 2, p.  
165, July 7, 1925 (reference). —

Mc Culloch,



Sugggrundus harrisii (Mc Culloch)

Insidiator harrisii Mc Culloch,  
Zool. Res. Endeavour, vol. 2, pt.  
3, p. 146, pl. 20, fig. 1, text fig.  
12 (head), July 3, 1914 (type  
locality, near Pine Peak,  
Queensland; Moreton Bay;  
off Bowen; in 16 fathoms) in  
Austral. Mus. Mem., no. 5, pt.  
3, p. 403, Nov. 28, 1929 (reference).

Mc Culloch and Whitley, Mem. Queens-  
land Mus., vol. 8, pt. 2, p. 165,  
July 7, 1925 (reference). — Mc Culloch,



Thysanophrys malayanus Fowler,  
Mem. Bishop Mus., vol. 10, p. 301,  
1928 (copied).



Sugggrundus diversidens (McCulloch)

Insidiator diversidens McCulloch,  
Zool. Res. Endeavour, vol. 2, pt. 3,  
p. 148, pl. 31, fig. 1, text fig. 13  
(head), July 3, 1914 (type  
locality, Seven miles S.  $21^{\circ}$  W.  
of Port Stephens Lighthouse,  
New South Wales, in 48 fathoms);  
Austral. Mus. Mem., no. 5, pt.  
3, p. 403, Nov. 28, 1929 (reference).



2032

Suggmundus parilis (McCulloch)

Insidiator parilus McCulloch,  
Zool. Res. Endeavour, vol. 2, pt.  
3, p. 151, pl. 31, fig. 2, text fig.  
14 (head), July 3, 1914

(type locality, Port Darwin,  
Northern Territory; Mapoon,  
Gulf of Carpentaria, Queens-  
land); Austral. Mus. Mem.,

no. 5, pt. 3, p. 403, Nov. 28, 1929  
(reference).

(— McCulloch and Whitley, Mem. Queensland  
Mus., vol. 8, pt. 2, p. 165, July 7, 1925  
(reference). — McCulloch,

Platycephalus japonicus (not Tilesius)  
Macleay, Proc. Linn. Soc. New  
South Wales, vol. 5, p. 585, 1881.  
— Saville-Kent, Great Barrier Reef,  
p. 1, 1893 (Queensland).



Genus Wakiyus Jordan and Hubbs

Wakiyus Jordan and Hubbs, Mem.  
Carnegie Mus., vol. 10, no. 2, p.  
286, June 27, 1925. (Type  
Platycephalus spinosus  
Schlegel, orthotypic.)

Sorsogona Herre, Fishes of  
Herre Philippine Exped. ~~April 1931~~  
1931, ~~Herre~~, p. 67, March 10, 1934.  
(Type Sorsogona serrulata  
Herre, orthotypic.)



Body rather short and elevated. Minute villiform teeth in narrow bands in jaws, on vomer and palatines, those on vomer in 2 parallel bands. No thick, rigid lobe on inner edge of maxillary. All ridges of head, including snout, minutely serrate. Two keels along side of head. Preopercle angle with 3 spines, but without anterior spine or opercular flap below. No orbital tentacle. Scales 50 in lateral line, which more or less spinous anteriorly. Top of head scaleless.



Wakiyus townsendi (Regan).

Platycephalus townsendi Regan,  
Journ. Bombay Nat. Hist. Soc.,  
vol. 16, no. 2, p. 323, pl. A, fig. 1,  
1905 (type locality, Karachi;  
Muscat).

Depth 7; head 3, width  $1\frac{2}{3}$ .  
Snout  $3\frac{1}{5}$  in head from snout  
tip; eye  $4\frac{1}{2}$ ,  $1\frac{1}{3}$  in snout;  
maxillary reaches  $\frac{1}{4}$  in eye,  
length  $2\frac{1}{2}$  in head from snout  
tip; interorbital 9 to 10. Upper  
surface of head with weakly  
serrated ridges bearing very  
indistinct spines; preopercle  
with 3 spines, upper  $1\frac{1}{3}$  in space  
from its base to eye.

Scales 53 to 56 in a longi-  
tudinal series; only anterior 16  
to 20 scales of lateral line distinctly



2036

spinose; 7 scales below lateral line,

D. IX - 12, third spine 2 in total head length, second ray  $2\frac{1}{3}$ ; A. 12, third ray  $3\frac{4}{10}$ ; caudal 2, truncated; least depth of caudal peduncle 7; pectoral 2, reaches  $1\frac{7}{8}$  to anal origin; ventral rays I, 5,  $1\frac{1}{2}$  in head, reaches anal.

Brownish, some darker spots or bars on cheek. Opercle base blackish. Naked area above pectoral, covered by opercular flap, white with black vermiculations. Spinous dorsal blackish, spines spotted. Soft dorsal with 5 longitudinal series of spots on rays. Caudal and ventral blackish, with obscure spots. Anal pale or



Platycephalus nigripinnis Regan,  
Journ. Bombay Nat. Hist. Soc.,  
vol. 16, no. 2, p. 322, pl. a, fig. 2, 1905  
(type locality, Muscat, in 15 to  
30 fathoms).

Depth 6; head 3, width  $1\frac{3}{5}$ .  
Snout



2037

dusky. Pectoral barred with  
spots. Length without caudal  
157 mm. (Regan.)

Arabia, Karachi.



Wakius cooperi (Regan).

Platycephalus cooperi Regan,  
Journ. Linn. Soc. London, ser. 2,  
vol. 12, Zool., pt. 3, ~~May~~ p. 238,  
pl. 29, fig. 5, May 1908 (type  
locality, Annamite, Seychelles,  
30 fathoms; Cargador Carajon,  
20 - 30 fathoms).

Depth 6; head  $2\frac{2}{3}$ , width  $1\frac{1}{3}$ .  
Snout  $3\frac{1}{5}$  in head from snout  
tip; eye  $3\frac{1}{2}$  to  $4\frac{1}{4}$ ,  $\frac{1}{8}$  in snout,  
4 times interorbital width;  
maxillary reaches  $\frac{1}{4}$  in eye.  
Supraorbital ridges serrated;  
second suborbital with serrated  
ridge; more or less developed  
spine in middle of each bone  
on upper surface of cranium and  
also on preorbital and first  
suborbital; preopercular spines



3, upper  $\frac{1}{2}$  to  $\frac{3}{4}$  diameter of eye.

Scales 58 to 65 in longitudinal series; anterior 5 to 8 of lateral line spiniferous; 6 scales above lateral line to spinous dorsal origin. Head naked above.

D. IX - 11 or 12, third spine  $2\frac{3}{4}$  in total head length; ~~the~~ first branched dorsal ray  $2\frac{9}{10}$ ; A. 11; caudal subtruncate; pectoral  $2\frac{1}{8}$ , rays III, 16, III; ventral rays I, 4, fin  $1\frac{3}{7}$  in total head length, reach third or fourth anal ray.

Spinous dorsal blackish superiorly and paired fins obscurely spotted. Length 200 mm. (Regan.)

Seychelles and Cargados Carajos, Indian Ocean.



2040

Wakiyus spinosus (Schlegel)  
~~Wakiyus spinosus~~

Platycephalus spinosus Schlegel,  
Fauna Japonica, Poiss., pts. 2-4,  
p. 40, pl. 16, figs. 1-2, 1843 (type  
locality, Japan). — Richardson,  
Ichth. China and Japan, p.  
217, 1846 (Canton). — Bleeker,  
Verh. Batavia. Genoot. (hal.  
Ichth. Japan), vol. 25, p. 11, 1853  
(reference); (hal. Ichth. Japan),  
vol. 26, pp. 5, 77, 1857 (Nagasaki);  
Nat. Tijds. Ned. Indië, vol. 20,  
p. 235, 1859-60 (Nagasaki);  
Nat. Soc. Sci. Ind. Neerl., vol.  
3, no. 3, p. 5, 1857-58 (Japan);  
vol. 5, no. 9, p. 2, 1858-59  
(Nagasaki).



— Günther, Cat. Fish. Brit. Mus.,  
 vol. 2, p. 190, 1860 (copied); Rep.  
 Voy. Challenger, vol. 1, pt. 6, p.  
 42, 1880 (south of New Guinea  
 in N. lat.  $10^{\circ}36'$ , E. long.  $141^{\circ}55'$ ).  
 — Ishikawa and Matsuura,  
 Cat. Mus. Tokyo, p. 48, 1897.

Imidiator spinosus Jordan  
 and Snyder, Annot. Zool. Japon.,  
 vol. 3, p. 105, 1901 (reference). —  
McCulloch, Mem. Austral.  
 Mus., no. 5, pt. 3, p. 404, Nov. 28,  
 1929 (reference).



Thysanophrys spinosus Jordan  
and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 632, fig. 2, 1908  
(Nagasaki). — Franz, Abhandl.  
K. Bayer. Akad. Wiss., vol. 4,  
Suppl. Band 1, p. 77, 1910  
(Fukushima). — Fowler, Mem.  
Bishop Mus., vol. 10, p. 301, 1928  
(copied).



2043

Thysanophrys tuberculatus (not  
Cuvier) Fowler and Bean, Proc.  
U. S. Nat. Mus., vol. 62, no. 2, p.  
65, 1923 (smallest example  
from Takao).

Sorsogona serrulata Herre,  
Fishes of Herre Philippine Exped.  
1931, p. 67, March 10, 1934 (type  
locality, Magallanes, Sorsogon  
Province, Luzon).



(2044)

Depth  $5\frac{3}{4}$  to 6; head  $2\frac{1}{2}$  to  $2\frac{2}{3}$ ,  
width  $1\frac{1}{3}$  to  $1\frac{3}{4}$ . Snout  $3\frac{2}{3}$  to  
 $3\frac{1}{2}$  in head from snout tip;  
eye 4 to  $4\frac{1}{2}$ ,  $1\frac{1}{5}$  to  $1\frac{1}{4}$  in snout,  
3 times bony interorbital width;  
orbit  $3\frac{4}{5}$  to  $4\frac{1}{3}$  in head from  
snout tip, 1 to  $1\frac{1}{2}$  in snout;  
maxillary reaches  $\frac{1}{4}$  to  $\frac{1}{3}$  in  
eye, length  $2\frac{1}{3}$  to  $2\frac{1}{2}$  in head  
from snout tip; teeth finely  
villiform, in equally wide  
bands above and below in  
jaws; 2 parallel patches of  
small villiform teeth on vomer  
and on each palatine long  
narrow band; interorbital  
width  $3\frac{1}{5}$  to  $3\frac{1}{3}$ , deeply  
concave. Gill rakers 1 + 4,  
besides 5 low tubercles above  
and 8 or 9 below; lanceolate,



2045

$2\frac{1}{2}$  in eye; gill filaments  $\frac{3}{4}$   
gill rakers.

Usually 4 spines between front nostrils and close set pair of spines between hind nostril; strong antero-supra-orbital spine, with 3 close set small spines below on front edge of orbit; supra-orbital ridge with 12 serrae, last longest, then 3 or 4 short, low spinous keels, followed by pair of large parietal spines, and small occipitals close behind; postocular row of 7 serrae, then continues higher up as 4 or 5 spines of which last suprascapular; lower preorbital edge with 3 small spines directed forward;



suborbital stay with serrated edge its entire extent; preopercle angle with large spine  $2\frac{1}{5}$  in eye, with strong, short, outer basal spine in front and 2 more on hind preopercle edge below; opercular spines 2, lower little advanced; strong humeral spine.

Scales 40 to 50 + 3 to 8 on lateral line, of which first 8 to 10 may each bear a spine; 3 scales above, 11 below, 8 predorsal forward opposite hind edge of preopercle. Small scales on chest, prepectoral region and caudal base. Top of head scaly posterior to eyes. Upper edge



of eye posteriorly with cutaneous flap nearly long as pupil. Scales with 5 basal radiating striae; 34 or 35 short slender apical denticles, with 2 or 3 transverse series of basal elements; circuli fine, coarser apically.

D. IX - I, 11, I, third spine 2 to  $2\frac{1}{3}$  in total head length, first branched ray  $2\frac{1}{10}$  to  $2\frac{1}{5}$ ; A. 12, I, third branched ray  $3\frac{3}{5}$  to  $3\frac{2}{3}$ ; caudal  $1\frac{3}{4}$ , convex behind; least depth of caudal peduncle  $6\frac{2}{3}$  to  $6\frac{3}{4}$ ; pectoral 2 to  $2\frac{1}{8}$ , rays I, 18, fin reaches  $1\frac{4}{5}$  in depressed ventral; ventral rays I, 5, fin  $1\frac{2}{5}$  in total head or reaches base of



third anal ray.

Dull brown above, obscurely mottled with darker, and 4 or 5 darker brown transverse bands, which extend down on sides, and in pale intervening spaces alternating paler bands of similar width. Iris yellowish. Under surfaces of body brownish. Jaws with several lateral brown blotches. Fins with pale or light ground color. First dorsal with 3 or 4 dark transverse bands, broken more as finer spots anteriorly. Each dorsal ray with 5 dark spots. Caudal with 4 or 5 dark transverse bands, made up of spots or rays. Upper half of pectoral with 10 transverse



2049

series of dark brown spots  
on each ray and lower half of  
fin more clouded or darker,  
especially terminally, though  
ends of rays pale. Ventral  
with 2 or 3 dark gray to  
blackish subterminal transverse  
bands.

East Indies, Philippines,  
China, Formosa and Japan.



This species differs from Wakius macrocephalus (Weber) chiefly in its more finely serrated ridges on the head. The ridge before the lower preopercular spine is often well serrated though I have never seen it so in Weber's species. The paired fins are very finely cross banded with darker. The suborbital stay has its edge uniformly finely serrated and not interrupted opposite the lower front part of the eye. I am convinced that Gorogona serrulata Herre is a synonym. Its serrated ridge to the lower opercular spine usually, though not always diagnostic.



2057

4393. D. 5217. Anima Vola  
Island, N.  $42^{\circ}$  W., 17.30 miles  
(N. lat.  $13^{\circ}20'$ , E. long.  $123^{\circ}14'15''$ ),  
between Burias and Luzon.  
In 105 fathoms. April 22, 1908.  
Length 74 mm.

4409. D. 5181. Antonia Island  
(S.), S.  $63^{\circ}$  W., 6.60 miles (N. lat.  
 $11^{\circ}36'40''$ , E. long.  $123^{\circ}26'35''$ ),  
off eastern Panay. In 26 fathoms.  
March 27, 1908. Length 94 mm.

3943, 3944. D. 5647. North  
Island (S.), S.  $87^{\circ}$  E., 11.6 miles  
(S. lat.  $5^{\circ}34'0''$ , E. long.  $122^{\circ}18'15''$ ),  
Buton Strait. In 519  
fathoms. December 16, 1909. Length  
78 to 103 mm. Two examples.

6454. Mahinog, Camiguin  
Island. August 3, 1909. Length  
62 mm.



4368 to 4371. D. 5157. Tinalta  
Island (N), S.  $80^{\circ}$  W., 3.30 miles  
(N. lat.  $5^{\circ} 12' 30''$ , E. long.  $119^{\circ} 55' 50''$ ), Sulu Archipelago, Tawi  
Tawi Group. In 18 fathoms.  
February 21, 1908. Length 58 to  
120 mm.

U. S. N. M., no. 59656. Kagoshima,  
Japan. Dr. H. M. Smith.  
Length 118 mm. As Insidiator  
macrolepis.

U. S. N. M., no. 59657. Kagoshima.  
Dr. H. M. Smith. Length 67 to 112  
mm. Three examples. As  
Insidiator macrolepis.

U. S. N. M., no. 59658. Yamagawa.  
Dr. H. M. Smith. Length 108 mm.

U. S. N. M., no. 70733. Kobe.  
D. S. Jordan and J. Q. Snyder.  
Length 81 to 122 mm. Six examples.



As Thysanophrys macrolepis.  
Lateral line rather smooth.

U. S. N. M., no. 72154.

Shimizu, Japan. Bureau of  
Fisheries. Length 85 to 93 mm.  
Two examples.

U. S. N. M., no. 72155.

Shimizu. Bureau of Fisheries.  
Length 87 to 95 mm. Two  
examples.

U. S. N. M., no. 74793.

Yawatahawa, Izo. Y. Manabe.  
Length 85 to 93 mm. Two  
examples. As Thysanophrys macrolepis.

U. S. N. M., no. 64648. Nagasaki.

D. S. Jordan and J. O. Snyder.

Length 60 to 128 mm. Eighteen examples.

U. S. N. M., no. 76532. Obama,

Japan. Dr. Fred Baker.

May 1914. Length 103 mm.



U. S. N. M., No. 76652. Formosa.  
Length 60 mm. Dr. Fred Baker.  
As Thysanophrys tuberculatus.  
Opercular keel to lower spine  
finely serrated.



2053

Genus Anigocia Jordan and Thompson

Anigocia Jordan and Thompson,  
Proc. U. S. Nat. Mus., vol. 44, p. 70,  
1913. (Type Platycephalus  
~~rudis~~ macrolepis Bleeker,  
orthotypic.)

Characterized by the presence  
of large scales in the lateral line,  
about 40, 3 opercular spines,  
and a small cirrus over each  
eye.



2054

Onigocia  
~~Wakusyu~~ macrolepis (Bleeker)

Platycephalus macrolepis Bleeker,  
Nat. Tijds. Ned. Indie, vol. 6,  
p. 399, 1854 (type locality, Nagasaki);  
Verh. Batav. Genoot. (Nat.  
Dicht. Japan), vol. 26, p. 5. 76,  
pl. 4, figs. 1-a, 1857 (Nagasaki);  
Act. Soc. Sci. Ind. Neerl., vol.  
3, no. 3, p. 5, 1857-58 (Japan);  
Nat. Tijds. Ned. Indie, vol. 20,  
p. 235, 1859-60 (Nagasaki). —  
Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 188, 1860 (copied). —  
Steindachner and Döderlein,  
Denks. Akad. Wiss. Wien, math.-  
naturw. Kl., vol. 53, pt. 1, p. 260,  
1887 (Tokyo).



2055

Insidiator macrolepis Jordan  
and Snyder, Annot. Zool. Japon.,  
vol. 3, p. 105, 1901 (reference).

Thysanophrys macrolepis Jordan  
and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 634, 1908 (Nagasaki).  
— Franz, Abhandl. Bayer. Akad.  
Wiss., vol. 4, Suppl. Band 1, p. 78,  
1910 (Aburatsubo).

Onigocia macrolepis Jordan and  
Thompson, Proc. U. S. Nat. Mus.,  
vol. 46, p. 70, 1913 (Shikoku).



2056

Insidiator hosokawae Smith  
and Pope, Proc. U. S. Nat. Mus.,  
vol. 31, p. 486, fig. 8, 1906 (type  
locality, Uradō in Tosa Province,  
Japan).

Platycephalus macrocephalus  
Weber, Siboga Exped., vol. 65,  
Fische, p. 508, fig. 107, 1913  
(type locality, Bali Sea, in 100  
meters; Sapeh Straits, 69 meters;  
north of Waigiu, 141 meters; south  
coast of Timor, 36 meters).

Thysanophrys macrocephalus  
Fowler, Mem. Bishop Mus., vol.  
10, p. 301, 1928 (copied).



2057

Depth  $6\frac{1}{2}$  to 7; head  $2\frac{2}{3}$  to  $2\frac{3}{4}$ ,  
width  $1\frac{1}{2}$ . Snout  $3\frac{1}{3}$  to  $3\frac{2}{5}$  in  
head from snout tip; eye  $4\frac{2}{3}$   
to  $5\frac{1}{5}$ ,  $1\frac{1}{2}$  in snout, 2 to  $2\frac{1}{2}$   
times bony interorbital width;  
orbit  $3\frac{3}{5}$  to 4 in head from  
snout tip, 1 to  $1\frac{1}{4}$  in snout;  
maxillary reaches  $\frac{1}{4}$  to  $\frac{1}{3}$  in eye  
or to about opposite front  
pupil edge, length  $2\frac{1}{3}$  to  $2\frac{2}{5}$  in  
head from snout tip; teeth  
minute, villiform in jaws,  
bars about equally wide, 2  
small parallel patches on  
vomer and each palatine with  
long narrow band; interorbital  
 $3\frac{1}{3}$  to  $3\frac{1}{2}$  in orbit, deeply concave.  
Gill rakers 1 + 4, lanceolate,  
twice gill filaments or  $2\frac{1}{2}$  in  
orbit.



Genus Thysanophrys Ogilby

Thysanophrys Ogilby, Proc. Linn.  
Soc. New South Wales, vol. 23, p.  
40, 1898. (Type Platycephalus  
cuvonasus Richardson, orthotypic.)



2058

Few minute, irregular spines  
in internasal; rather strong  
antero-supraorbital spine  
followed on ridge by 7 or 8  
low even several to stronger  
coronal spine, then larger  
parietal spine but no occipital  
spine; row of 6 postocular  
spines, fourth small and  
little higher and last 2 larger  
suprascapulars; single strong  
serrated ridge along side of  
head forms suborbital stay,  
with very short notch or  
interval opposite middle of  
eye; long spine at preopercle  
angle 2 in orbit, with small  
basal spine on its outer face  
and 2 more small spines on  
lower edge of preopercle; 2  
opercular spines, about



2059

opposite and lower with rather long beel forward; strong humeral spine.

Scales 33 to 40 + 3 in lateral line, first 2 or 3 each with a spine; 3 scales above, 10 below; 9 predorsal forward opposite hind preopercle edge. Small scales on breast and prepectoral, also on caudal base. Head scaly above, behind eyes, and only  $\frac{1}{2}$  scales on postocular region to hind preopercle edge. Small posterior flap on eye above level of hind pupil edge. Scales with 4 to 6 basal radiating striae; 26 to 36 short, slender, apical denticles, with 1 to 3 transverse series of basal elements; circuli



fine, coarser basally.

D. VIII or IX — I, 10, I or I, 11, I,  
 third spine  $2\frac{1}{8}$  to  $2\frac{1}{5}$  in total  
 head length, first branched  
 ray  $2\frac{1}{4}$  to  $2\frac{2}{7}$ ; A. 12, I, third  
 ray 4 to  $4\frac{1}{8}$ ; caudal  $1\frac{2}{3}$ ? to  
 $1\frac{4}{5}$ , convex behind; least  
 depth of caudal peduncle  
 $6\frac{3}{5}$  to  $6\frac{1}{2}$ ; pectoral  $2\frac{1}{5}$  to  
 $2\frac{1}{3}$ , reaches  $1\frac{3}{5}$  to  $1\frac{3}{4}$  in  
 depressed ventral, rays I, 18;  
 ventral rays I, 5, fin reaches  
 first or second anal ray base,  
 fin length  $1\frac{3}{5}$  to  $1\frac{4}{5}$  in total  
 head length.

Dull terra-cotta brown  
 above, with 5 or 6 obscure  
 darker cross bands. Lower  
 surface pale to whitish. Iris  
 pale to coppery, eye ball gray.



Dorsals pale with 5 to 8 rows of dark brown or brown spots on each spine or ray. Caudal pale, with 3 or 4 brownish irregular transverse bands and outer half of fin mottled with brown. Paired fins pale to whitish, with 7 or 8 transverse rows of deep brown spots, less distinct basally on ventral.

Philippines, Japan.



2062

Differs from Walsbyus spinosus  
(Schlegel) in the more depressed  
head, less regular rows of  
spines on the cranium, larger  
scales on the opercles and the  
front of the lateral line with  
very few spines. My materials  
don't altogether agree with  
Weber's figure as none of the  
examples show the cranium so  
well scaled and the spines  
are more inconspicuous. All  
have a serrated ridge ending  
a projection, of which 2 to 4  
spines may be seen from  
above, though Weber shows but  
one.



2703, 2704., N. lat.  $21^{\circ}42'$ , E. long.  $114^{\circ}50'$ , China Sea. In 38 fathoms. August 9, 1908. Length 89 to 114 mm. Four examples.

3020. D. 5303. N. lat.  $21^{\circ}44'$ , E. long.  $114^{\circ}48'$ , China Sea. In 34 fathoms. August 9, 1908. Length 102 mm.

4354, 4355. D. 5308. N. lat.  $21^{\circ}54'$ , E. long.  $115^{\circ}42'$ , China Sea, <sup>In 62 fathoms.</sup> November 4, 1908. Length 86 to 95 mm.

D. 5309. N. lat.  $21^{\circ}5'$ , E. long.  $115^{\circ}51'$ , China Sea. In 62 fathoms. November 4, 1908. Length 78 to 94 mm. Five examples.

4529. D. 5431. Corandagos Island (NW.), N.  $28^{\circ}$  E., 4.8 miles (N. lat.  $10^{\circ}38'45''$ , E. long.  $120^{\circ}12'45''$ ), eastern Palawan and



2069

vicinity. In 51 fathoms. April 8,  
1909. Length 80 mm.

D. 5442. San Fernando Point  
Light, N.  $39^{\circ}$  E., 8.4 miles (N.  
lat.  $16^{\circ}30'36''$ , E. long.  $120^{\circ}11'6''$ ),  
west coast of Luzon. In 45  
fathoms. May 11, 1909.

U. S. N. M., No. 64649. Nagasaki.  
D. S. Jordan and J. O. Snyder.  
Length 83 to 123 mm. 28 examples.



Onigocia oligolepis (Regan).

Platycephalus oligolepis Regan,  
Journ. Linn. Soc. London, ser. 2,  
vol. 12, Zool., pt. 3, p. 238, pl. 29,  
fig. 4, May 1908 (type locality,  
Cargados Carajos, 20 to 30  
fathoms).

Depth  $5\frac{2}{3}$ ; head  $2\frac{2}{3}$ , width  
 $1\frac{2}{7}$  in its length. Snout  $3\frac{1}{4}$  in  
head from snout tip; eye  $3\frac{1}{2}$ ,  
 $1\frac{1}{8}$  in snout, 4 times interorbital  
width; maxillary reaches  $\frac{1}{3}$  in  
eye; vomerine teeth in 2 separate  
patches. Lower gill rakers 5.  
Head with numerous, compressed  
curved spines; 2 pairs on snout,  
3 in front of each orbit, 10 or  
11 on each supraorbital ridge,  
which is followed on each side  
by a group of 4; spine on each



parietal, 2 or 3 behind middle of each orbit, 2 on each supra-temporal, series of 3 on each post-temporal. Suborbital ridge spinate throughout, ending in a preopercular spine of moderate length, below which are 2 others. Two opercular spines and 1 on clavicle.

Scales 31 in longitudinal series; only anterior 3 or 4 of lateral line spiny; 3 scales above lateral line to origin of spinous dorsal.

D. IX - I, 10, third spine  $2\frac{1}{3}$  in total head length, seventh ray  $3\frac{1}{10}$ ; A. 11; caudal subtruncate, length  $1\frac{3}{4}$ ; pectoral 2, rays I, 12, VIII; ventral rays I, 5, fin  $1\frac{1}{5}$ , extend to fourth or fifth anal ray.



2067

dusky spot on each ventral  
fin subbasally. Length 100 mm.  
(Regan.)

Cargados Carajó, Indian Ocean.



Anigocia pedimacula (Regan)

Platycephalus pedimacula

Regan, Journ. Linn. Soc.  
London, ser. 2, vol. 12, Zool.,  
pt. 3, p. 238, May 1908 (type  
locality, Kolunadulu, Maldives,  
35 fathoms).

Four spines in front of each orbit; supraorbital ridge entire anteriorly, serrated posteriorly, followed by series of 3 spines; 2 spines on each parietal, series of 4 or 5 behind middle of each orbit. Suborbital ridge less strongly serrated than in P. oligolepis, a series of about 26 serrae in this species instead of 17 as in the preceding one; <sup>length 62 mm.</sup> (Regan.)  
Maldives. Perhaps the young of P. oligolepis (Regan).



2069

Anigocia grandisquamis (Regan)

Platycephalus grandisquamis

Regan, Journ. Linn. Soc. London,  
ser. 2, vol. 12, Zool., pt. 3, p. 239,  
May 1908 (type locality,  
L'Anse aux Pins, Seychelles, in 30  
fathoms).

Depth  $5\frac{1}{2}$ ; head  $2\frac{1}{2}$ . Snout  
little shorter than eye; eye 3 in  
head, 4 times interorbital width;  
maxillary reaches  $\frac{1}{3}$  in eye;  
vomerrine teeth in 2 separate  
patches. Four lower gill rakers.  
Head with several spines; 2 on  
snout, 1 or 2 in front of each  
orbit; supraorbital ridges  
serrated except anteriorly; behind  
them on each side a more or less  
regular transverse series of 3 or 4



2070

spines, which are followed by a larger spine on each parietal, with a small one behind; a serrated ridge behind middle of each orbit; series of 3 post-temporal spines; suborbital ridge serrated throughout, ending in a preopercular spine of moderate length, below which are 2 others. Two opercular spines and 1 on clavicle.

Scales 30 in a longitudinal series; only anterior 3 or 4 scales of lateral line spinate.

D. IX, I, 10; A. 11; caudal subtruncate; ventrals extend to fourth anal ray.

Brownish, with dusky bars or marblings. Pectoral blackish posteriorly in its lower half. Ventral with 2 blackish cross



bars, one near its tip. Length <sup>2071</sup>  
73 mm. (Regan.)

Seychelles.



Genus Rogadius Jordan and  
Richardson

Rogadius Jordan and Richardson,  
Proc. U. S. Nat. Mus., vol. 33, p. 630,  
1908. (Type Platycephalus  
asper Cuvier, orthotypic.)



Head long, rather high.

Body slender, tapering. Eye without cirri or lappets.

Armature of head well developed, serratures small. Scales moderate, about 40 in lateral line, only few anterior beeked, rest of lateral line smooth or entire.

Known chiefly by its armature, the large antorse spine at the front of the preopercle quite characteristic. The head is also rough or rugose on the region behind the eyes and many of the ridges are serrated.



2074

Rogaduis pristiger (Cuvier)

Platycephalus pristiger Cuvier,  
Hist. Nat. Poiss., vol. 4, p. 260,  
1829 (type locality, New Guinea;  
Celebes). — Duoy and Gaimard,  
Voy. Astrolabe, Zool., vol. 3,  
p. 685, pl. 10, fig. 5, 1834 (Port  
Dorey, New Guinea). — Bleeker,  
Nat. Tijds. Ned. Indie, vol. 12,  
p. (193) 205, 1856 (Ternate);  
vol. 13, p. 383, 1857 (Batjan);  
Act. Soc. Sci. Ind. Neerl., vol. 2,  
no. 7, p. 4, 1857 (Ambaina);  
vol. 3, no. 4, p. 3, 1857-58 (Manado);  
Nat. Tijds. Ned. Indie, vol. 17,  
p. 142, 1858-59 (Boeleng, Bali);  
vol. 20, p. 206, 1859-60 (Boeleng);  
vol. 22, p. 113, 1860 (Buru).



— Günther, Cat. Fish. Brit. Mus.,  
 vol. 2, p. 189, 1860 (copied). —  
Bleeker, Verslag. Kon. Akad.  
 Wet. Amsterdam, vol. 12, p. 32,  
 1861 (Singapore); Atlas Ichth.  
 Ind. Néerl., vol. 9, pl. (3) 420,  
 fig. 1-1a, 1877; Verh. Kon. Akad.  
 Wet. Amsterdam, vol. 19, no. 2,  
 p. 29 (Singapore; Bali; Celebes;  
 Ternate; Batjan; Limbora;  
 New Guinea). — Günther, Rep.  
 Voy. Challenger, vol. 1, pt. 6, p.  
 42, 1880 (south of New Guinea,  
 S. lat.  $10^{\circ} 36' F.$  long.  $141^{\circ} 55'$ ).  
 — Elera, Cat. Fauna Filipinas,  
 vol. 1, ~~1897~~ p. 498, 1897 (Luzon;  
 Manila Bay).



— Jordan and Richardson, Proc.  
U. S. Nat. Mus., vol. 33, p. 630, 1908  
(name only). — Regan, Journ.  
Lin. Soc. London, ser. 2, vol. 12,  
Zool., pt. 3, p. 238 (Amirante,  
Seychelles, 30 fathoms).



Insidiator fristiger Mc Culloch,  
Austral. Mus. Mem., vol. 5, pt.  
3, p. 403, Nov. 28, 1929 (reference).

Rogadius fristiger Fowler, Mem.  
Bishop Mus., vol. 10, p. 301, 1928  
(copied).

Thysanophrys tuberculatus (not  
Cuvier) Fowler and Bean, Proc. U.  
S. Nat. Mus., vol. 62, art. 2, p. 65  
1922 (two from Tabao).



2078

Depth  $6\frac{7}{8}$  to  $7\frac{1}{4}$ ; head  $2\frac{1}{2}$  to  $2\frac{3}{5}$ ,  
width  $1\frac{1}{8}$  to  $1\frac{2}{5}$ . Snout 3 to  $3\frac{1}{2}$   
in head from snout tip; eye  
 $4\frac{7}{8}$  to  $5\frac{1}{4}$ ,  $1\frac{2}{5}$  to  $1\frac{2}{3}$  in snout,  
3 to 4 times wide as bony  
interorbital width; orbit 4  
to  $4\frac{1}{2}$  in head from snout tip,  
 $1\frac{1}{8}$  to  $1\frac{1}{4}$  in snout; maxillary  
reaches  $\frac{1}{4}$  to  $\frac{1}{3}$  below in orbit,  
length  $2\frac{2}{5}$  to  $2\frac{1}{2}$  in head  
from snout tip; teeth finely  
williform, in bands in jaws  
and upper band in front twice  
as wide as lower band; vomer  
with 2 short and rather broad  
patches of similar teeth and  
long narrow band on each  
plate; interorbital width  
 $4\frac{3}{4}$  in orbit, deeply concave.  
Gill rakers 1 + 7, besides 6



brown subterminally, whitish  
basally.

4410. D. 5181. Antonio Island.  
Off Eastern Panay (S.),  $5.63^{\circ}$  W.,  
6.60 miles (N. Lat.  $11^{\circ}36'40''$ , E.  
Long.  $123^{\circ}26'35''$ ), in 26 fathoms.  
March 27, 1908. Length 91 mm.  
A. N. S. P., one example. Bombay,  
India. Dr. F. Hallberg. Purchased.  
Length 40 mm.



2079

rudimentary asperous tubercles  
above and 7 or 8 below; length  
3 in orbit; gill filaments  $\frac{1}{2}$   
of gill rakers.

no nasal spines; rather  
large, strong, antero-supraorbital  
spine, followed by finely  
serrated ridge, extending back  
gives off well developed parietal  
spine; serrated postocular  
ridge and 2 keels at suprascap-  
ula, each ending behind in  
spine and posterior longer;  
single lateral ridge on side  
of head forms suborbital  
stay, all its extent finely  
serrated and without any  
large spines; preopercle with  
large spine at angle, 2 in  
orbit, with small spine at  
base in front; 5 more spines



along lower preopercle edge, first large and directed forward; opercular spines 2, upper little advanced, lower with beel forward superiorly twice length that of upper spine and its anterior half with edge finely serrated; humeral spine blunt and strong. Cranium behind eyes rugosely striated.

Scales 58 to 60 + 4 or 5 in lateral line; tubular scales 45 or 46 + 3 in lateral line, and first 6 to 9 each with short spine; 5 scales above, 15 or 16 below, 10 or 11 predorsal. Scales smaller and finer on breast and chest, and prepectoral, than on sides of body.



Caudal with nearly basal third  
scaly. Head scaly above and  
behind eyes. Scales with 4  
to 6 basal radiating striae;  
17 to 22 slender apical  
denticles, with 4 or 5 transverse  
series of basal elements;  
circuli fine, coarser apically.

D. IX - I, 10, I, third spine  
 $2 \frac{3}{4}$  to  $3 \frac{1}{2}$  in total head length,  
first ray  $2 \frac{1}{2}$  to  $2 \frac{4}{5}$ ; A. 11, I, third  
ray  $4 \frac{2}{5}$  to  $4 \frac{2}{3}$ , fin edge well  
notched after tip of each ray;  
caudal  $1 \frac{7}{8}$ , concave behind;  
least depth of caudal peduncle  
8 to 9; pectoral  $2 \frac{1}{4}$  to  $2 \frac{1}{3}$ , rays  
I, 20 or I, 21, fin reaches  $1 \frac{3}{5}$  to  
 $1 \frac{2}{3}$  in depressed ventral;  
ventral I, 5, fin  $1 \frac{2}{5}$  to  $1 \frac{3}{5}$  in  
total head or reaches base of



third anal ray.

Back and upper surfaces brown, with 4 or 5 irregular and very obscure dark blotches. Under surfaces whitish. Iris gray, evidently pale in life. Goggles pale or very light gray, each with 3 or 4 rows of blackish brown blotches, though larger on spinous fin. Anal whitish. Caudal pale or whitish, with 4 or 5 transverse blackish brown bands, often subbasal paler. Paired fins pale or whitish, with deeper tints of gray or brown subterminally as about 3 bands of rather larger irregular blotches on ventral; fine dark spots on



2083

upper half of pectoral, lower half with brownish streak on each membrane.

Seychelles, Malaya, East Indies, Philippines, Formosa.

4537. D. 5339. Canayan Island (N.), S.  $59^{\circ}$  E., 10 miles (N. lat.  $11^{\circ}22'$ , E. long.  $119^{\circ}12'$ ), Palawan Passage. In 52 fathoms. December 20, 1908. Length 150 mm.

2702. D. 5302. China Sea (N. lat.  $21^{\circ}42'$ , E. long.  $114^{\circ}50'$ ). In 38 fathoms. August 9, 1908. Length 150 mm.



2701, 2696, 3018, 3019, 3021.

D. 5303. China Sea (N. lat.  $21^{\circ}44'$ , E. long.  $114^{\circ}48'$ ), in 34 fathoms. August 9, 1908.

Length ~~143~~<sup>143</sup> to 176 mm.

4530, D. 5431. Corandagor Island (N. W.), N.  $28^{\circ}$  E., 4.8 miles (N. lat.  $10^{\circ}38'45''$ , E. long.  $120^{\circ}12'45''$ ), eastern Palawan. In 51 fathoms. April 8, 1909.

Length ~~150~~ 150 mm.

3984. D. 5104. Sueste Point Light, S.  $58^{\circ}$  W., 130 miles (N. lat.  $14^{\circ}45'48''$ , E. long.  $120^{\circ}12'20''$ ), off southern Luzon. In 33 fathoms. January 8, 1908. Length 128 mm.



4030. D. 5105. Suerste Point  
Light, N.  $57^{\circ}$  W., 1.90 miles (N.  
lat.  $14^{\circ}43'55''$ , E. long.  $120^{\circ}12'$   
 $50''$  E.), off southern Luzon.  
In 25 fathoms. January 8, 1908.  
Length 118 mm.

U. S. N. M., No. 85484, Formosa.  
Dr. Fred Baker. Length 101 to 103  
mm. Two examples. As  
Thysanophrys tuberculatus.



Rogadius asper (Cuvier)

Platycephalus asper Cuvier,  
 Hist. nat. Poiss., vol. 4, p. 257,  
 pl. 82, 1829 (type locality, Japan).  
 — Schlegel, Fauna Japonica,  
 Poiss., pts. 2-4, p. 40, pl. 16, figs.  
 4-5 (head), 1843 (Japan). —  
Richardson, Ichth. China and  
 Japan, p. 217, 1846 (Canton). —  
Günther, Cat. Fish. Brit. Mus.,  
 vol. 2, p. 190, 1860 (China). —  
Steindachner and Döderlein,  
 Denks. Akad. Wiss. Wien, math.-  
 naturw. Kl., vol. 53, pt. 1, p. 261,  
 1887 (Osima). — Elera, Cat.  
 Fauna Filipinas, vol. 1, p. 498,  
 1896 (Luzon; Manila).



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Rogadius polyodon (Bleeker)

Platycephalus polyodon Bleeker,  
Nat. Tijds. Ned. Indie, vol. 4, p.  
462, 1853 (type locality, Batavia,  
Java); vol. 5, p. 234, 1853 (Ceram);  
vol. 6, p. 457, 1854 (Amboina);  
vol. 7, p. 228, 1854 (Manado,  
Celebes); Act. Soc. Sci. Ind.  
Nedl., vol. 1, no. 3, p. 4, 1856  
(Manado); vol. 1, no. 5, p. (5) 36,  
1856 (Amboina); vol. 2, no. 7,  
p. 4, 1857 (Amboina). — Günther,  
Cat. Fish. Brit. Mus., vol. 2, p. 183,  
1860 (copied). — Bleeker, Atlas  
Ichth. Ind. Nedl., vol. 9, pl. (3) 420,  
fig. 2, 1877; Verh. Kon. Akad. Wet.  
Amsterdam, vol. 19, no. 2, p. 25, 1879  
(Java; Celebes; Ceram; Amboina).



Platycephalus polyodon



According to Bleeker's figure this species is shown without the serrated supraorbital ridges continued behind the eyes, as in *Rogadius pristiger* Cuvier. Its caudal also has a wide dark transverse basal band and a broad subterminal one but little darker.



— Ishikawa and Matsuura, Cat.  
Fish. Mus. Tokyo, p. 48, 1897.

— Regan, ~~Journ.~~ Trans. Linn. Soc. London,  
ser. 2, vol. 12, Zool. pt. 3, p. 237,  
May 1908 (Mnilabu, 27 fathoms;  
North Male, 35 fathoms,  
Maldives).



Invidiator asper Jordan and  
Snyder, Annot. Zool. Japon.,  
vol. 3, p. 105, 1901 (reference).

Rogadius asper Jordan and  
Richardson, Proc. U. S. Nat. Mus.,  
vol. 33, p. 631, fig. 1, 1908 (Swatow).



— Jordan and Richardson, Proc.  
U. S. Nat. Mus., vol. 33, p. 630, 1908  
(name only).



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Cymbaplatycephalus nematophthalmus  
(Günther)

Platycephalus nematophthalmus  
Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 184, 1860 (type locality,  
Port Essington; Victoria). —  
Steindachner, Sitzs. Ber. Akad.  
Wiss. Wien, vol. 60, pt. 1, p. 561, 1870  
(Singapore).

— Günther, Journ. Mus. Godeffroy,  
vol. 6, pt. 11, p. 166, pl. 107, fig. C, 1876  
(head of type). — Bleeker, Atlas  
Ichth. Ind. Néerl., vol. 9, pl. (3) 420,  
fig. 3, 1877; Verh. Kon. Akad. Wet.,  
Amsterdam, vol. 19, no. 2, p. 10, 1879  
(Batu, Singapore, Bintang, Java, Celebes,  
Borneo, Morotai, Ternate, Buru,  
Waigiu).



Cy



— Klunzinger, Sitzs. Ber. Akad.  
Wiss. Wien, math.-naturw. Kl.,  
vol. 80, pt. 1, p. 367, 1879 (Queensland).

— Macleay, Proc. Linn. Soc. New  
South Wales, vol. , pt. , p. ,  
1881 (Port Essington; Port Darwin);  
vol. 7, p. 360, 1882 (New Guinea).



2095

Thysanophrys nematophthalmus  
Fowler and Bean, Proc. U. S. Nat.  
Mus., vol. 62, p. 64, 1903 (Zamboanga).  
— Fowler, Mem. Bishop Mus.,  
vol. 10, p. 300, 1928 (copied).

Insidiator nematophthalmus  
Mc Culloch, Austral. Mus. Mem.,  
No. 5, pt. 3, p. 403, Nov. 28, 1929  
(reference).  
Zool. Res. Endeavour, vol. 2, pt. 3, p.  
149, July 3, 1914 (off Hervey Bay,  
Queensland; Moreton Bay; Murray  
Island; Torres Strait). — Mc  
Culloch and Whitley, Mem. Queensland  
Mus., vol. 8, pt. 2, p. 165, July 7, 1925 (reference).  
— Mc Culloch,



Platycephalus isacanthus (not  
Valenciennes) Bleeker, Nat. Tijds.  
Ned. Indie, vol. 2, p. (471) 481,  
 1851 (Rio); vol. 3, p. (52) 63,  
 1852 (Singapore).

Platycephalus tentaculatus (not  
Rüppell) Kner, Reise Novara, Fische,  
 p. 122, 1865.

Platycephalus staigeri (not Castelnau)  
Saville-Kent, Great Barrier  
Reef, p. 292, pl. 63, fig. 6, 1893  
 (North Queensland).



Depth  $8\frac{1}{5}$  to  $8\frac{1}{4}$ ; head  $2\frac{4}{5}$  to  $3\frac{1}{8}$ ,  
 width  $1\frac{7}{8}$  to 2, snout 3 to  $3\frac{1}{5}$  in  
 head from snout tip; eye 6 to 8,  
 2 to  $2\frac{1}{2}$  in snout, 2 to  $2\frac{1}{2}$  times  
 long interorbital; orbit  $4\frac{1}{10}$  to 5  
 in head from snout tip,  $1\frac{3}{4}$  to  $1\frac{1}{2}$   
 in snout; maxillary reaches eye  
 or  $\frac{1}{2}$  in orbit, length  $2\frac{2}{3}$  to  $2\frac{3}{4}$   
 in head from snout tip; bands  
 of villiform teeth in jaws, upper  
 band greatly broadened anteriorly,  
 lower narrow; 2 narrow, parallel,  
 well spaced bands of villiform  
 teeth on vomer and single similar  
 band on each palatine; tongue  
 broadly bilobed in front, smooth;  
 interorbital  $2\frac{7}{8}$  to 3 in orbit,  
 concave. Gill rakers  $2 + 4$  to 6,  
 besides 5 rudimentary asperous  
 tubercles above and 10 below,



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lanceolate, subequal with gill  
filaments, which  $2\frac{3}{4}$  in orbit.

No nasal spines; single large  
antero-supraorbital spine, and  
ridge with 3 or 4 low postero-  
supraorbital spines and then  
2 larger spines, with 3 diverging  
low ridges to center of skull,  
where low short supraoccipital  
ridge; pair of parietal keels  
each ending in spine; deep pit  
large as pupil close behind  
eye above, followed by postocular  
spine, then ridge of 5 keels,  
all excepting second very low  
one ending behind in spine and  
last as suprascapular; no  
distinct preorbital spines; 2  
keels along side of head, upper  
as suborbital stay with spine



below postocular pit; 2 subequal short strong spines at preopercle angle; 2 strong opercular spines, upper little longer and more posterior.

Scales  $80 + 5$  in lateral line; pores  $47 + 3$  in lateral line; 10 scales above, 20 below, 17 predorsal. Head largely scaly posteriorly above. Caudal base scaly. Scales with 8 or 9 basal radiating striae; 30 to 32 apical denticles, with 6 or 7 transverse series of basal elements; circuli fine, becomes coarser apically. Supraorbital cirrus branched, long as eye. Flap, long as pupil below lower opercular spine.

D. VIII - I, 11, I, soft fin edge well notched, second spine  $2\frac{1}{8}$  to  $2\frac{1}{2}$  in total head length,



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first branched ray  $2\frac{1}{2}$  to  $2\frac{3}{5}$ ;  
A. 11, I, fin edge notched, fourth  
ray  $3\frac{1}{4}$  to 4; caudal  $1\frac{3}{5}$  to  $1\frac{2}{3}$ ,  
rounded behind; least depth  
of caudal peduncle  $5\frac{2}{3}$  to  $5\frac{3}{4}$ ;  
pectoral  $2\frac{2}{5}$  to  $2\frac{2}{3}$ , ray I, 18 to  
I, 20; ventral I, 5, fin  $1\frac{1}{2}$  in  
total head length.

Rather dark brown above,  
with 6 or 7 darker brown blotches  
along each side of back. In  
small example several alter-  
nating still darker or blackish.  
Dark brown blotch below eye,  
blackish in young. Iris  
brownish. Dorsals pale, clouded  
with brownish variegated with  
fine, irregular whitish lines.  
Caudal like dorsals. Anal  
whitish, with subterminal



2001

blackish blotch behind end of  
each ray. Paired fins brownish,  
darker terminally or with  
some nearly blackish blotches,  
both variegated with fine  
whitish irregular lines. Under  
surfaces white. Iris grayish.

East Indies, Philippines,  
Australia, Queensland.



21783. Cebu market. March

20, 1909. Length 95 mm.

4591. Iloilo market. March

29, 1908. Length 158 mm.

7810. Zuluagan Bay near mouth  
of Baheli River. December 28,  
1908. Length 203 mm.

M. 5328.

Length 234 mm.

U. S. N. M., No. 84180. Philippines.

Dr. Fred Baker. Length 230 mm.

U. S. N. M., No. 84249. Philippines.

Dr. Fred Baker. Length 263 mm.







Cymbaplatycephalus armatus  
new species



Genus Platycephalus Bloch

Platycephalus Bloch, Naturg.  
Aust. Fische, vol. 9, p. 96, 1795.  
(Type Platycephalus spatula  
Bloch, monotypic.)

Callionomus Lacépède, Hist. Nat.  
Poiss., vol. 2, p. 343, 1800. (Type  
Callionymus indicus Linnaeus,  
monotypic.)



Body elongate, well depressed.  
Head large, broad, greatly  
depressed. Snout moderate,  
long, obtusely rounded as seen  
from above. Eye at first third  
in head, well separated.  
Maxillary reaches below eye.  
Mouth large, broad, lower  
jaw well protruding. Bands  
of villiform teeth in jaws;  
crescentic band of canine  
like teeth on vomer; row of  
canine like teeth on each  
palatine. No ocular cirri.  
Armature of head little developed.  
Preopercle angle with 2  
subequal spines and no spine  
on lower face of bone. Branchi-  
ostegals 7. Pyloric caeca 14.  
Vertebrae 27, of which 15 caudal.



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Scales very small, over 100 in lateral series. Lateral line smooth, unarmed. Dorsals separate, first preceded by free spine, spines 8, rays 13. Anal similar to and opposite soft dorsal, rays 13. Caudal truncate. Pectoral short. Ventral longer than pectoral.

Indo Pacific. Probably a single, wide ranging species, distinguished chiefly by the little developed armature of the head.



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Platycephalus indicus (Linnaeus)

Callionymus indicus Linnaeus,

Syst. Nat., ed. 10, pt. 1, p. 250, 1758  
(type locality, Asia); ed. 12,  
pt. 1, p. 434, 1766 (copied). —

Bonnaterre, Tabl. Ichth., p. 44,  
1788 (Asia). — Gmelin, Syst.

Nat., Linn., pt. 1, p. 1153, 1789

(copied). — Walbaum, Artedi

Pisc., vol. 3, p. 612, 1792 (copied).

— Forster, Fauna Indica, p. 14,  
1795 (reference).



Batrachus indicus Schneider,  
Syst. Ichth. Bloch, p. 43, 1801  
(India).

Calliomorus indicus Lacépède,  
Hist. nat. Poiss., vol. 2, pp. 343,  
344, 1800 (Asia).

Platycephalus indicus Bleeker,  
Atlas Ichth. Ind. Néerl., vol. 9,  
pl. (1) 418, fig. 3-a, 1877;  
Arch. Néerl. Sci. nat., vol. 13,  
p. 37, 1878 (New Guinea); Verh.  
Kon. Akad. Wet. Amsterdam,  
vol. 19, no. 2, p. 8, 1879 (Sumatra,  
Pinang, Singapore, Bintang,  
Biliton, Java, Madura, Boorneo,  
Celebes, Batjan, Amboina,  
Goram, New Guinea).



— Steindachner, Ann. K. K.  
Höfner. Wien, vol. 11, p. 206, 1896  
(Japan).

— Jordan and Snyder, Annot.  
Zool. Japan, vol. 3, p. 104, 1901  
(reference). — Fowler, Journ.  
Acad. Nat. Sci. Philadelphia,  
ser. 2, vol. 12, p. 550, 1904 (Padang).  
— Steindachner, Denks. Kais.  
Akad. Wiss. Wien, vol. 76, pt. 1,  
p. 145, 1907 (S. Othman, South  
Arabia). — Jordan and Richardson,  
Philippine Journ. Sci., vol. ,  
p. 53, 1910 (reference).



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 Acad. Wiss., math.-physik. Kl.,  
 vol. 26, abh. 6, p. 14, 1913 (Meheran).  
 — Bamber, Journ. Linn. Soc. London,  
 vol. , Zool., ~~1915~~ p. 484, 1915  
 (Sudanese Red Sea).

— Fowler and Bean, Proc. U. S.  
 Nat. Mus., vol. 71, art. 10, p. 9, 1927  
 (Bengkelen, Sumatra). — Fowler,  
 Proc. Acad. Nat. Sci. Philadelphia,  
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 Philippines); Mem. Bishop Mus.,  
 vol. 10, p. 30a, 1928 (copied); Proc.  
 Acad. Nat. Sci. Philadelphia,  
 vol. 87, p. 153, 1935 (Bangkok).  
 — McCulloch and Whitley, Mem. Queensland  
 Mus., vol. 8, pt. 2, p. 164, July 7, 1925  
 (reference). — Fowler,



Platycephalus indicus <sup>Franz</sup> ~~Günther~~  
Abhandl. <sup>Kön.</sup> Bayer. Akad. Wiss.,  
Math.-physik. Kl., vol. ~~26~~ 4,  
Suppl. band 1, p. 78, 1910 (Yokohama)  
(error).



Cottus insidiator Forskål, Descript.  
Animal., pp. X, 25, 1775 (type  
locality, "Arabia"). —  
Bonnaterre, Tabl. Ichth., p.  
68, 1788 (Red Sea). — Gmelin,  
Syst. Nat. Linn., pt. 1, p. 1213,  
1789 (Arabia). — Lacépède,  
Hist. Nat. Poiss., vol. 3, pp. 231,  
1247, 1802 (Asia). — Shaw,  
General Zool., vol. 4, p. 260, 1805.



Platycephalus insidiator Schneider,  
 Syst. Ichth. Bloch, p. 59, 1801  
 ("arenosis locus"). — Cuvier,  
 Hist. Nat. Poiss., vol. 4, p. 227,  
 1829 (Red Sea, Coromandel,  
 Massanah, Madagascar,  
 Moluccas). — Rüppell, Neue  
 Wirbelth., p. 102, 1835 (Red  
 Sea). — Schlegel, Fauna  
 Japonica, Poiss., pts. 2-4, p. 39,  
 pl. 15, fig. 1, 1843 (Japan,  
 Red Sea, Sumatra, Java,  
 Moluccas, New Guinea). —  
Richardson, Ichth. China and  
 Japan, p. 216, 1846 (Canton).

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 (Madura) vol. 22, p. 4 (Kammal).



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p. 478 (Billiton); vol. 2, p. 210,  
1851 (Boeloekumba); vol. 5,  
~~1852~~ p. 154, 1853 (Macassar),  
p. 429 (Pontianak, Borneo);  
Verh. Batavia. Genoots.  
(hal. Dchth. Japan), vol. 25,  
p. 11, 1853 (reference); (hal.  
Dchth. Bengal), vol. 25, p. 34,  
1853 (reference); Nat. Tijds.  
Ned. Indie, vol. 7, p. 227, 1854  
(Macassar); vol. 10, p. 346, 1856  
(Rio, Bintang); Verh. Batavia.  
Genoot. (hal. Dchth. Japan), vol.  
26, p. 5, 1857 (Nagasaki);



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Act. Soc. Sci. Ind. Neerl., vol. 1,  
no. 3, pp. 7, 9, 1856 (Macassar);  
vol. 1, no. 5, p. 74, 1856 (Amboina),  
vol. 2, no. 6, p. 3, 1857 (Barito  
River, Bandjermasin, Borneo);  
vol. 2, no. 7, p. 4, 1857 (Amboina);  
Verh. Batavia. Genoot. (hal.  
Ichth. Japan), vol. 26, p. 5, 1857  
(Nagasaki); Act. Soc. Sci. Ind.  
Neerl., vol. 3, no. 3, p. 5, 1857-58  
(Japan); Nat. Tijds. Ned.  
Indie, vol. 15, p. 200, 1858  
(Goram); Act. Soc. Sci. Ind.  
Neerl., vol. 8 (Sumatra), p. 12,  
1859 (Benculen), p. 14 (Tandjong);  
Nat. Tijds. Ned. Indie, vol. 20,  
p. 141, 1859-60. (Badjoa, Boni),  
p. 219 (Tandjon), pp. 237, 449  
(Singapore).



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vol. 2, p. 177, 1860 (Ganges, Calcutta,  
Japan, China, Ceylon, Malay  
Peninsula, Moluccas, Amboina,  
Cape York, Western Australia,  
North west Australia, Red Sea,  
Port Natal, Cape of Good Hope).

— Day, Fishes of Malabar, p. 43,  
1865. — Kner, Reise Novara,

p. 121, 1865 (Java); — Bleeker,

Verslag. Kon. Akad. Wet.

Amsterdam, ser. 2, vol. 2, p. 277,  
1868 (Batjan), p. 293 (Rio, Bintang).

— Playfair, Fishes of Zanzibar,  
p. 49, 1866 (Aden, Zanzibar).



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— Klunzinger, Verh. zool. bot. Gesell.  
Wien, vol. 20, p. 815, 1870 (Red  
Sea).

— Day, Fishes of India, pt. 1, p.  
276, 1875 (Madras). — Alleyne  
and Macleay, Proc. Linn. Soc.  
New South Wales, vol. 1, p. ,  
1876 (Cape Grenville; Cape York).  
— Klunzinger, Sitzs. Ber. Akad.  
Wiss. Wien, math.-naturw. Kl.,  
vol. 80, pt. 1, p. 367, 1879 (Cleve-  
land Bay). — Günther, Rep.  
Voy. Challenger, vol. 1, pt. 6, p. 33,  
1880 (Mary River, Queensland),  
p. 41 (Somerset), p. 55 (Hong  
Kong), p. 66 (Yokohama Bay;  
Inland Sea). — Macleay, Proc.  
Linn. Soc. New South Wales, vol. ,  
p. , 1880 (North and North West  
Australia; Cape York).



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 Denks. Akad. Wiss. Wien, math.-  
 naturw. Kl., vol. 53, pt. 1, p. 259,  
 1887 (Tokio; Kochi; Kagoshima).  
 — Day, Fauna British India,  
 Fishes, vol. 2, p. 238, 1889.

— Jordan and Seale, Proc. U. S. Nat.  
 Mus., vol. 28, p. 794, 1905 (Negros); ~~and~~  
 Bull. Bur. Fisher., vol. 26, p. ,  
 1906 (Cavite). — Evermann and  
Seale, Bull. Bur. Fisher., vol. 26,  
 p. , 1906 (San Fabian). —  
Gilchrist, Marine Investig. South  
 Africa, vol. 1, p. 120, 1907 (reference).



— Gilchrist and Thompson, Ann.  
South African Mus., vol. 6, p. 194,  
1908-11 (Durban). — Jordan and  
Richardson, Bull. Bur. Fisher.,  
vol. 27, p. , 1908 (Manila).

— Zugmayer, Abhandl. Kön. Bayer.  
Akad. Wiss., Math.-physik. Kl.,  
vol. 26, abh. 6, p. 14, 1913 (München).

— Fowler, Proc. Acad. Nat. Sci.  
Philadelphia, vol. 77, p. 255, 1925  
(Delagoa Bay; Natal).

Platycephalus insidiator Elera,  
Cat. Fauna Filipinas, vol. 1, p. 497,  
1895 (Luzon; Manila Bay).



2123

Cottus roqad Forskål, Descript.  
Animal., p. 25, 1775 (type locality,  
"Arabica") (alternate name  
for Cottus insidiator).

Platycephalus spatula Bloch,  
Naturg. Ausland. Fische, vol. 9,  
p. 97, pl. 424, 1795 (type locality,  
Tranquebar).

Platycephalus spatula Schneider,  
Syst. Ichth. Bloch, p. 59, 1801  
(Tranquebar).

Cottus madagascariensis Lacépède,  
Hist. Nat. Poiss., vol. 3, (p. 248),  
pl. 11, figs. 1-2, 1802 (type locality,  
Fort Dauphin, Madagascar).  
— Shaw, General Zoology, vol.  
1, p. 261, pl. 37, 1805.



Callionomus chaca Buchanan -  
Hamilton, Fishes of Ganges, ~~Vol.~~  
 pp. 133, 372, 1822 (type locality,  
 Ganges River).

Platycephalus chacca Gray,  
Illustrat. Indian Zool., vol. 2,  
 pl. 93, fig. 2, 1833-34 (India).

Platycephalus endrachtensis  
Duoy and Gaimard, Voy. Iranie,  
Zool., p. 353, Jan. 29 - May 26, 1825  
 (type locality, "baie des Chiens-  
 marins, dans la terre d'Endracht"  
 [= Shark Bay, Endracht Land]).

— Cuvier, Hist. nat. Poiss., vol.  
 vol. 4, p. 240, 1829 (copied). —  
Richardson, Ichth. China and  
Japan, p. 217, 1846 (Chusan).



2125

Platycephalus angustus Steindachner, Sitzs. Ber. Akad. Wiss. Wien, math.-naturw. Kl., vol. 53, p. 21 b, pl. 1, fig. 4, 1866 (type locality, "Surinam" [= East Indies?]). — Jordan and Evermann, Bull. U. S. Nat. Mus., vol. 2, p. 2029, 1898 (copied; doubtful).

Platycephalus americanus Sauvage, Nouv. Arch. Mus. Hist. Nat. Paris, vol. , p. 148, pl. 14, fig. 3, 1878 (type locality, "Potomac River" [= Indo Pacific]). — Jordan and Evermann, op. cit., p. 2029, 1898 (copied; doubtful).



Platycephalus platysoma

Zugmayer, Ann. Mag. Nat. Hist.,  
London, ser. 8, vol. 10, p. 595, 1912  
(type locality, Gwadar,  
Baluchistan); Abhandl. Königl.  
Bayer. Akad. Wiss., Math.-  
physik. Kl., vol. 26, abh. 6, p. 19,  
1913 (type).



2127

Depth 11 to  $12\frac{2}{3}$ ; head  $3\frac{1}{4}$  to  $3\frac{2}{5}$ ,  
width  $1\frac{1}{2}$ . Snout  $3\frac{1}{3}$  to  $3\frac{2}{3}$  in  
head from snout tip; eye 7 to 8,  
2 to  $2\frac{1}{3}$  in snout, 1 to  $1\frac{3}{5}$  in  
interorbital; maxillary  $\frac{1}{3}$  in eye  
or  $\frac{1}{2}$  in eye with age, length  
 $2\frac{2}{5}$  to 4 in head; interorbital  
 $4\frac{1}{2}$  to  $6\frac{1}{2}$ , broadly depressed,  
slightly concave. Gill rakers  
6 + 11, lanceolate, equal gill  
filaments or  $\frac{1}{2}$  of eye.

No nasal spines; pair of  
small, close set antero-supra-  
orbital spines, followed by  
finely serrated supraorbital  
ridge, which approximates to  
center of skull; all keels low,  
parietal each with several close  
set diverging back toward short  
median, then coronal and



occipital pair, each ending in spine behind; postocular spine low, short, followed by keel with 2 or 3 spines, also larger outer one above upper part of preopercle; strong low suprascapular keel ending in spine, preceded by 2 others of which first short; 2 short, thick, pre-orbital spines; 2 keels on side of head, upper forming suborbital stay, with short spine behind hind eye edge; 2 strong spines at hind preopercle ~~edge~~ angle, lower much larger or nearly equals eye; 2 opercular spines, upper more posterior.



Scales 76 to 106 in lateral line to caudal base and 2 to 4 more on latter; 11 or 12 above, 20 or 21 below; 18 to 23 predorsal. Caudal with nearly basal half scaly. Head largely scaly above. Scales with 9 or 10 basal radiating striae; 28 or 29 apical denticles, with 4 transverse rows of basal elements; circuli fine.

D. VIII - I, 12, second spine  $2\frac{1}{10}$  to  $2\frac{3}{5}$  in total head length, first ray  $2\frac{1}{5}$  to  $2\frac{1}{3}$ ; A. 13, I, fifth ray  $3\frac{1}{2}$  to 4; caudal  $1\frac{9}{10}$  to 2, convex behind; least depth of caudal peduncle  $7\frac{4}{5}$  to 8; pectoral  $2\frac{1}{6}$  to  $2\frac{1}{3}$ , rays I, 17 or



I, 18; ventral rays I, 5, fin  
 $1\frac{2}{5}$  to  $1\frac{1}{2}$  in total head length.

Back number brown, sometimes finely speckled or dotted with darker. Sides finely speckled dusky. Small examples with black spot on opercle, another opposite soft dorsal front, one near last third of depressed soft dorsal, one on caudal peduncle above. Body whitish below. Iris gray. Spinous dorsal grayish. Soft dorsal pale gray, with several brown spots on each ray. Caudal gray, with upper and lower black longitudinal band, also longitudinal brown band on lower part of upper half. Pectoral brown, rays



2131

finely spotted darker. Ventral similar, pale.

Red Sea, Arabia, Zanzibar, Delagoa Bay, Natal, Cape of Good Hope, Madagascar, Melran, India, Ceylon, Malaya, Siam, East Indies, Philippines, China, Japan, North Australia, North west Australia and Queensland. Platycephalus platysoma Zugmayer is based on an example 570 mm. long, and seems to be the present species. Its interorbital is said to equal 2 eye diameters.



4949. Iloilo market. March 29,  
1908. Length 138 mm.

12318. Luzon shore, San  
Vicente Harbor. November 13, 1908.  
Length 159 mm.

8052, 8053. Manila market.  
March 18, 1908. Length 175 to 180  
mm.

6388. Mantaguin Bay, Palawan.  
April 1, 1909. Length 277 mm.

1818, D. 5204. Mariguitda-  
quit Island, N.  $88^{\circ}$  E., 3.50 miles  
(N. lat.  $11^{\circ}4'18''$ , E. long.  $125^{\circ}5'$   
 $30''$ ), off east coast of Leyte.  
In 15 fathoms. April 11, 1908.  
Length 288 mm.

19932. Parang, Mindanao.  
May 23, 1908. Length 275 mm.

18687. Port Jamelo, Luzon.  
July 13, 1908. Length 248 mm.



U. S. N. M., no. 5931. East coast  
of Hiphon. Length 422 mm.

U. S. N. M., no. 6093. Hong Kong.  
William Stimpson. Length 257  
mm.

U. S. N. M., no. 6499. Hong Kong.  
William Stimpson. Length 395  
mm.

U. S. N. M., no. 22514. Simosa,  
Japan. Japanese Government.  
Length 216 mm.

U. S. N. M., no. 37760. Fusan,  
Korea. J. B. Bernadon. Length 197 mm.

U. S. N. M., no. 38833. Tokio,  
Japan. Dale and Jouy. Educa-  
tional Museum of Japan. Length  
333 mm.

U. S. N. M., no. 49476. Tokio.  
Albatross Collection. October 1896.  
Length 225 mm.



2134  
U. S. N. M., no. 44922. Japan.  
Japanese Government. Length  
362 mm.

U. S. N. M., no. 52049. Negros.  
Bashford Dean. Length 278 mm.

U. S. N. M., no. 55599. Manila.  
Dr. E. A. Mearns. Length 188 mm.

U. S. N. M., no. 55925. Luzon.  
Bureau of Fisheries (3900). Length  
156 mm.

U. S. N. M., no. 56318. Cavite.  
G. A. Lung. Length 157 to 228 mm.  
Two examples.

U. S. N. M., no. 57539. Japan.  
P. L. Jouy. Length 158 mm.

U. S. N. M., no. 59651. Kagoshima,  
Japan. Dr. H. M. Smith. Length  
224 mm.

U. S. N. M., no. 62338. Tsuruga.  
D. S. Jordan and J. O. Snyder.  
Length 218 to 254 mm. Two examples.



U. S. N. M., no. 70729. Wakanoura,  
Japan. D. S. Jordan and J. O. Snyder.  
Length 295 to 328 mm. Three  
examples.

U. S. N. M., no. 70736. Matsushima,  
Japan. D. S. Jordan and J. O. Snyder.

U. S. N. M., no. 72005. Kagoshima.  
Albatross Collection. Length 266  
mm.

U. S. N. M., no. 72070. Misaki.  
Albatross Collection. Length 310 mm.

U. S. N. M., no. 72128. Tokio.  
Albatross Collection 1906. Length 195  
to 254 mm. Six examples.

U. S. N. M., no. 72722. Java.  
Bryant and Palmer. Length 430 mm.

U. S. N. M., no. 75972. Japan?  
P. L. Jouy. Length 305 to 337 mm.  
Two examples.



U. S. N. M., no. 75973. Japan?  
Dale and Jouy. Length 172 to  
210 mm. Two examples.

U. S. N. M., no. 85869. China.  
A. de C. Sowerby. Length 173 mm.

U. S. N. M., no. 86341. China.  
A. de C. Sowerby. Length 105 to 167  
mm. Three examples.

U. S. N. M., no. 86971. Foochow,  
China, A. de C. Sowerby. Length  
150 mm.

U. S. N. M., no. 87997. Benkoelen,  
Sumatra. Lieut. H. C. Kellers.  
Length 173 mm.



Platycephalus arenarius

Ramsay and Ogilby

Platycephalus arenarius Ramsay  
and Ogilby, Proc. Linn. Soc. New  
South Wales, vol. 10, pt. 4, p. 577,  
April 3, 1886 (type locality,  
Middle Harbour, Port Jackson);  
Abstr. Proc. Linn. Soc. New South  
Wales, p. v, Oct. 28, 1885 (name only).  
— Ogilby, Cat. Fish. New South  
Wales, p. 33, 1886. — McCulloch,  
Biol. Res. Endeavour, vol. 3, pt. 3,  
p. 164, pl. 13, fig. 1, ~~April 21, 1915~~  
text fig. 3 (head and dentition),  
April 21, 1915 (22 miles south  
west of Double Point, Queensland,  
29 fathoms; 5 miles south east  
of Boomerang Hill, Fraser Island,



Queensland, 15 fathoms; Wide  
Bay and Platypus River.

Queensland); Mem. Austral.  
Mus., No. 5, pt. 3, p. 401, Nov. 28,  
1929 (reference).



— McCulloch and Whitley, Mem.  
Queensland Mus., vol. 8, pt. 2, p.  
164, July 7, 1925 (reference).



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Depth  $10\frac{1}{4}$ ; head  $3\frac{1}{10}$ , width  
 $1\frac{2}{5}$ . Snout 2 in head from  
snout tip; eye  $5\frac{1}{2}$  in snout,  
greater than interorbital;  
maxillary reaches  $\frac{1}{3}$  in eye,  
length  $2\frac{3}{4}$  in head from snout  
tip; upper teeth canine like  
either side of premaxillary  
symphysis, rapidly change  
to villiform to form band on  
either side; below conic and  
uniserial; vomerine teeth form  
uniserial arch, outer large  
and canine like; palatine teeth  
uniserial, conic; interorbital  
 $9\frac{1}{2}$ , flat.

Ridges of head low, smooth,  
not ending in spines. Minute  
antero-supraorbital spine.  
Two ridges extend back from  
orbits, join broken series of



smaller ridges on either side of small median one. Low series extends from eye to suprascapula. Preopercle with 2 strong spines, lower larger, other directed obliquely upward.

Scales 80 to 110 close along above lateral line; tubular scales 74 in lateral line, unarmed. Body covered with small ctenoid scales. Scales on head extend forward to front margins of eyes.

D. VIII - 13, third spine  $2\frac{1}{4}$  in <sup>total</sup> head, second ray  $2\frac{3}{5}$ ; A. 13, third ray  $3\frac{4}{5}$ ; caudal  $2\frac{1}{6}$ , hind edge little convex; least depth of caudal peduncle  $8\frac{1}{6}$ ; pectoral  $2\frac{1}{8}$ , rays 20; ventral rays I, 5, fin  $1\frac{1}{2}$  in total head length.



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Above closely speckled with rounded, darker gray spots. Spines and rays of Dorsal fins with gray spots. Anal whitish, with membrane between posterior rays blackish. Caudal white, with 5 striking black stripes, which increase in width below and upper ones oblique, lower horizontal. Paired fins spotted! Length 340 mm. (McCulloch.)

New South Wales, Queensland. Readily known by the 4 black, parallel, horizontal bands on the caudal.



Platycephalus bataviensis Bleeker

Platycephalus bataviensis Bleeker,  
 Nat. Tijds. Ned. Indie, vol. 4, p.  
 460, 1853 (type locality, Batavia,  
 Java); vol. 7, p. 360, 1854  
 (Batjan); vol. 8, p. 392, 1855  
 (Amboina), p. 437 (Bonthaian,  
 Celebes); vol. 9, p. 492, 1855  
 (Batjan); vol. 12, p. 213, 1856  
 (Nias); Act. Soc. Sci. Ind.  
 Neerl., vol. 2, no. 7, p. 4, 1857  
 (Amboina). — Günther, Cat.  
 Fish. Brit. Mus., vol. 2, p. 188,  
 1860 (copied). — Bleeker, Verslag.  
 Kon. Akad. Wet. Amsterdam,  
 vol. 12, p. 32, 1861 (Singapore).



2144

— Günther, Journ. Mus. Godeffroy,  
vol. 5, pt. II, p. 167, 1876 (Ponape).

— Bleeker, Atlas Ichth. Ind.  
Néerl., vol. 9, pl. (3) 420, figs.  
4-a, 1877; Verh. Kon. Akad.  
Wet. Amsterdam, vol. 19, no. 2,  
p. 21, 1879 (Nias, Singapore,  
Java, Celebes, Batjan, Ambina).

— Weber, Siboga Exped., vol. 65,  
Fische, p. 508, 1913 (near West  
New Guinea).



Thysanophrys bataviensis Evermann  
 and Seale, Bull. Bur. Fisher.,  
 vol. 26, p. , 1906 (Zolo). — Jordan  
 and Richardson, Proc. U. S. Nat.  
 Mus., vol. 33, p. 630, 1908 (name  
 only); Philippine Journ. Sci.,  
 p. 53, 1910 (reference). — Fowler,  
 Copeia, no. , p. , 1918  
 (Philippines); Mem. Bishop  
 Mus., vol. 10, p. 301, 1928 (Agaña,  
 Guam).



Platycephalus punctatus (not  
Cuvier) Seale, Occas. Pap. Bishop  
Mus., vol. 1, no. 3, p. 123, 1900  
(Guam).

Thysanophrys quoyi (not Bleeker)  
Fowler, Proc. Acad. Nat. Sci.  
Philadelphia, vol. 79, p. 287, 1927  
(Philippine materials of 1918).



Depth  $7\frac{1}{5}$ ; head  $2\frac{7}{8}$ , width 2.  
 Snout  $3\frac{1}{5}$  in head from snout  
 tip; eye 5,  $1\frac{2}{5}$  in snout, over 3  
 times interorbital; maxillary  
 reaches  $\frac{1}{4}$  in eye, length  $2\frac{1}{2}$  in  
 head from snout tip; broad  
 bands of granular teeth in  
 jaws, small band on vomer and  
 front of palatines; interorbital  
 17, deeply concave. Gill rakers  
 1+5, lanceolate.

(*Journal of the Academy of Natural Sciences of Philadelphia*, 1915).  
 Supraorbital spine present,  
 and posterior half of supra-  
 orbital ridge serrated; followed  
 by 4 or 5 radiating striae and  
 2 occipital spines each side;  
 postocular followed by 4 spines  
 above opercle, 2 at supra-  
 scapula; 3 small spines on  
 suborbital stay, also 1 at angle



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and smaller one below; 2 small opercular spines.

Scales  $67 + 4$  in lateral line; tubular scales  $48 + 2$  in lateral line; 8 scales above to soft dorsal origin; 12 below; 10 predorsal to mid-occipital spine; 6 rows along cheeks.

Scales with 7 to 9 basal radiating striae; 26 to 30 apical denticles; with 3 or 4 transverse series of basal elements; circuli fine.

D. I, VIII, I, 11, I, third spine  $2\frac{1}{6}$  in total head length, first branched ray  $2\frac{2}{5}$ ; A. 10, I, first ray  $5\frac{1}{4}$ ; caudal  $1\frac{3}{5}$ , little convex; least depth of caudal peduncle  $6\frac{1}{3}$ ; pectoral  $2\frac{1}{8}$ ; ventral  $1\frac{1}{3}$ .



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Brown, paler below. Each dorsal ray with 4 deep brown spots. Caudal deep brown terminally and on membranes, also 4 transverse rows of dark spots. Pectoral brown and ventral neutral gray terminally, former barred darker and latter with several broad dusky cross bars.

Malaya, East Indies,  
Philippines, Micronesia.

A. N. S. P., one example. Philippines.  
Commercial Museum of Philadelphia.  
Length 125 mm. As Thysanophrys  
bataviensis.



Platycephalus cantori Bleeker

Platycephalus cantori Bleeker,  
Verh. Kon. Akad. Wet. Amsterdam,  
vol. 19, no. 2, p. 26, 1879 (on Day).



Platycephalus carbunculus  
 (not Cuvier) Cantor, Journ.  
 Asiatic Soc. Bengal, vol. 18, pt.  
 2, p. 1021, 1849 (1850) (Pinang).  
 — Day, Fishes of India,  
 pt. 1, p. 278, 1875 (copied). —  
Günther, Cat. Fish. Brit. Mus.,  
 vol. 2, p. 181, 1860 (Cantor's  
 specimen). — Day, Fauna British  
 India, Fishes, vol. 2, p. 240, 1889  
 (copied).

Platycephalus malabaricus (not  
Cuvier) Günther, Cat. Fish.  
 Brit. Mus., vol. 2, p. 181, 1860  
 (Moluccas).



Platycephalus celebicus Bleeker

Platycephalus celebicus Bleeker,  
 Nat. Tijds. Ned. Indië, vol. 7, p.  
 450, 1854 (type locality, Manado);  
 Act. Soc. Sci. Ind. Neerl.,  
 vol. 1, no. 5, p. 5, 1856 (Amboina);  
 vol. 3, no. 4, p. 2, 1857-58  
 (Manado, Tomawanko). —  
Günther, Cat. Fish. Brit. Mus.,  
 vol. 2, p. 189, 1860 (copied). —  
Bleeker, Atlas Ichth. Ind.  
 Neerl., vol. 9, pl. (1) 418, fig. 1-a,  
 1877; Verh. Kon. Akad. Wet.  
 Amsterdam, vol. 19, no. 2, p. 30,  
 1879 (Celebes; Amboina).



Thysanophrys celebicus Jordan  
and Richardson, Proc. U. S.  
Nat. Mus., vol. 33, p. 630, 1908  
(name only).



Platycephalus clavulatus Cantor

Platycephalus clavulatus Cantor,  
 Journ. Asiatic Soc. Bengal,  
 vol. 18, pt. 2, p. 1020, 1849  
 (1850) (type locality, Pinang).  
Günther, Cat. Fish. Brit.  
 Mus., vol. 2, p. 176, 1860 (~~cop~~ note).



Platycephalus cultellus Richardson

Platycephalus cultellus Richardson,  
 Ichth. China and Japan, p. 217,  
 1845 (type locality, Canton). —  
Günther, Cat. Fish. Brit. Mus.,  
 vol. 2, p. 176, 1860 (reference).



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Platycephalus grandidiéri Sauvage

Platycephalus grandidiéri Sauvage,  
Bourv. Archiv. Mus. Hist. Nat.,  
Paris, vol. 9, p. 56, 1878 (type  
locality, Madagascar); Hist.  
Nat. Madagascar, Faiss., p. 308,  
pl. 36, figs. 3-3a, 1891 (type).

— Fowler, Ann. Natal Mus., vol.  
7, Pt. 3, p. 432, Oct. 1934 (Durban  
Bay).



Depth  $6\frac{1}{4}$ ; head  $2\frac{4}{5}$ , width  $1\frac{4}{5}$ .  
Snout  $2\frac{4}{5}$  in head from snout tip; eye  $7\frac{3}{5}$ ,  $2\frac{3}{4}$  in snout,  $1\frac{1}{4}$  in interorbital width; maxillary reaches eye, expansion 2 in eye, length  $2\frac{1}{2}$  in head; low broad supraorbital papilla; bony interorbital  $2\frac{1}{5}$  in interorbital width, which  $5\frac{2}{3}$  in head, deeply concave. Gill rakers 2 + 4, lanceolate, equal gill filaments or  $\frac{1}{2}$  of eye.

Scales 86 in lateral line to caudal base and 5 more on latter; tubes 53 in lateral line to caudal base and 3 more on latter; 9 scales above, 20 below and 15 predorsal. Scales with 13 to 16 basal radiating striae;



36 to 40 apical denticles, with 7 to 9 transverse series; circuli very fine.

D. VIII - 11, I, third spine  $2\frac{3}{4}$  in total head length, first ray  $3\frac{1}{4}$ ; A. 11, I, third ray 4; caudal 2, convexly rounded behind; least depth of caudal peduncle 7; pectoral  $2\frac{1}{2}$ ; ventral  $1\frac{1}{2}$ .

Upper surface dark brown, clouded and blotched with dusky to blackish. Under surface whitish. Dorsals pale brownish, with large median blackish blotch and several smaller posteriorly on spinous fin. Soft dorsal rays, each with 2 or 3 dark spots. Caudal with



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2 blackish basal bands transversely  
and 3 bands broken as spots  
terminally. Pectoral brown, each  
ray with 5 or 6 dark spots.  
Ventral with 5 transverse  
rows of broad blackish blotches.

A. N. S. P., one example. Durban  
Bay, Natal. 1929, H. W. Bell  
Harley. Length 420 mm.



Platycephalus grandispinis Cuvier

Platycephalus grandispinis  
Cuvier, Hist. Nat. Poiss., vol. 4,  
p. 247, 1829 (type locality, "Le  
lieu précis de son origine  
ne nous est pas connu" [= East Indies?]). — Günther,  
Cat. Fish. Brit. Mus., vol. 2, p.  
180, 1860 (copied). — Jordan  
and Richardson, Proc. U.S.  
Nat. Mus., vol. 33, p. 630, 1908  
(name only).



Platycephalus grandisquamis  
Weber

Platycephalus grandisquamis  
Weber, Siboga ~~Exp.~~ Exped., vol. 65,  
Fische, p. 509, fig. 108, 1913  
(type locality, S. lat.  $1^{\circ}42.5'$ ,  
E. long.  $130^{\circ}47.5'$ , near New  
Guinea, in 32 meters).

Thysanophrys grandisquamis  
Fowler, Mem. Bishop Mus., vol.  
10, p. 301, 1928 (copied).



Platycephalus haackei Steindachner

Platycephalus haackei Steindachner,  
Sitzs. Ber. Akad. Wiss. Wien, vol.  
 88, pt. 1, p. 1081, pl. 2, figs. 2-a,  
 1883 (type locality, St. Vincent  
 Gulf, South Australia). —  
McCulloch, Mem. Austral. Mus.,  
 no. 5, pt. 3, p. 402, Nov. 28, 1929  
 (reference).

? Platycephalus semermis De Vis,  
Proc. Linn. Soc. New South Wales,  
 vol. 8, pt. 2, p. 285, July 17, 1883  
 (type locality, South Australia).



Platycephalus heterolepis Barnard

Platycephalus heterolepis Barnard,  
Ann. Mag. Nat. Hist., London, ser.  
9, vol. 20, p. 77, 1927 (type locality).

Ann. South African Mus., vol. 21,  
p. 934, pl. 34, fig. 2, Oct. 1927  
(Delagoa Bay). — Fowler, Proc.  
Acad. Nat. Sci. Philadelphia,  
vol. 86, p. 488, 1934 (Natal).



Depth 7; head  $2\frac{2}{3}$ , width  $1\frac{2}{5}$ .  
 Snout  $3\frac{1}{2}$  in head from snout  
 tip; eye  $3\frac{3}{5}$ ,  $1\frac{1}{10}$  in snout, 4  
 times bony interorbital width,  
 with very short supraocular  
 tentacle; maxillary  $2\frac{2}{5}$  in head,  
 reaches  $\frac{1}{3}$  in eye; bony inter-  
 orbital concave. Gill rakers  
 1 + 7, lanceolate, equals gill  
 filaments or  $3\frac{1}{2}$  in eye.

Scales 44 + 1 in lateral  
 line, only first 8 to 10 each  
 with small slender short  
 spine; 4 scales above, 12 below,  
 6 predorsal forward to occiput;  
 sides of cranium and opercular  
 scaly. Scales with 6 basal  
 radiating striae; 25 to 28  
 apical denticles, with 3  
 irregular series of fine basal  
 elements; circuli fine.



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D. I, VII - 13, third spine  $2\frac{1}{5}$  in total head length, first ray  $2\frac{1}{3}$ ; A. 13, fifth ray 3, caudal  $1\frac{1}{2}$ , convex behind; pectoral  $2\frac{1}{8}$ ; ventral  $1\frac{2}{5}$ .

Brown above, with 4 obscure transverse bands, first at nape, second at front of soft dorsal, third at middle of soft dorsal and fourth at caudal peduncle, also whole upper surface with some scattered paler areas or blotches. Upper surfaces of body white. Dark blotch on cheek below eye and smaller one on preorbital. Iris dark gray. Spinous dorsal dark terminally, each spine with 5 or 6 obscure dark blotches. Soft dorsal pale and each



ray with 5 dark blotches.  
Caudal pale, with blackish  
subbasal transverse band  
and several less defined and  
paler terminally. Paired fins  
pale, each pectoral ray  
spotted with blackish. Ventral  
with 4 broad bands terminally,  
made up of blackish spots.

A. N. S. P., no.      fatal.  
1929. H. W. Bell Marley. Length  
72 mm.



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Platycephalus laevigatus Cuvier

Platycephalus laevigatus Cuvier,  
Hist. Nat. Poiss., vol. 4, p. 248,  
Nov. 1829 (type locality, Port  
Western, Victoria). — Duoy  
and Gaimard, Voy. Astrolabe,  
Zool., p. 684, pl. 10, fig. 4, 18

— Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 179, 1860 (copied). —  
Castelnau, Proc. Zool. Acclimat.  
Soc. Victoria, vol. 1, p. 84, 1872  
(Melbourne); vol. 2, p. 133, 1873  
(Freemantle); Record London  
Intern. Exhib., pt. 7, no. 5, p. 11,  
1873 (Victoria); Proc. Linn. Soc.  
New South Wales, vol. 3, p. (351) 379,  
1878 (Port Jackson).



— Klunzinger, Sitzs. Ber. Akad. Wiss. Wien, vol. 80, pt. 1, p. 367, 1879 (Hobson's Bay).

— Macleay, Proc. Linn. Soc. New South Wales, vol. 5, pt. 4, p. 582, 1881 (Port Western; Port Phillip; Western Australian).

— Ogilby, Cat. Fish. New South Wales, p. 33, 1886. — Jordan and Richardson, Proc. U. S. Nat. Mus., vol. 33, p. 630, 1908 (name only).

— Fowler, Proc. Acad. Nat. Sci. Philadelphia, vol. 75, p. 44, 1923 (Victoria). — McCulloch, Mem. Australian Mus., no. 5, pt. 3, p. 402, Nov. 28, 1929 (reference).



Platycephalus marmoratus  
Stead

Platycephalus marmoratus Stead,  
 Fisher. Dep. New South Wales  
 Publication (New Fish New South  
 Wales), p. 9, pls. 3-5, Sep. 1908  
 (type locality, Port Stephens;  
 Coffs Harbour; Clarence River,  
 Northern New South Wales). —  
McCulloch, Biol. Res. Endeavour,  
 vol. 4, pt. 4, p. 197, pl. 57, fig. 1, text  
 fig. 1 (head and dentition), Oct.  
 31, 1916 (8 miles east of Wandan  
 Bluffs, New South Wales, 35 to  
 40 fathoms); Mem. Austral.  
 Mus., no. 5, pt. 3, p. 402, Nov. 28,  
 1929 (reference).  
 — Ogilby, Mem. Queensland Mus., vol. 6, p.  
 1918 (Outer Caloundra Bank). — McCulloch and  
Whitley, Mem. Queensland Mus., vol. 8, pt. 2, p. 164,  
 July 7, 1925 (reference). — McCulloch,



Depth 10; head  $3\frac{1}{2}$ , width  $1\frac{1}{3}$ .  
 Snout  $3\frac{1}{10}$  in head from snout  
 tip; eye  $6\frac{3}{4}$ ,  $2\frac{1}{8}$  in snout, <sup>interorbital;</sup> equals,  
 maxillary reaches  $\frac{1}{3}$  in eye;  
 teeth villiform above, in lower,  
 enlarged near symphysis and  
 few canine like, below small  
 and in several rows on anterior  
 portion and larger and uniserial  
 posteriorly; group of canines on  
 either side of vomer, joined  
 by arched row of smaller  
 teeth; single row of large  
 teeth on each palatine, with  
 outer series of minute ones;  
 interorbital  $6\frac{1}{4}$ , flat, orbital  
 margins raised.

Ridges of head fairly well  
 defined, low, smooth, not  
 ending in spines. Small antero-  
 supraorbital spine. Preopercle  
 with 2 stout, flat spines.



Opercular ridges ending in minute spines, sometimes obsolete.

Scales 110 close above along lateral line; Tubular scales 65 in lateral line, unarmed.

Body with small ctenoid scales.

Small scales on opercle and postorbital part of preopercle.

D. VIII - 13, third spine  $2\frac{1}{2}$  in total head length, second ray  $2\frac{2}{5}$ ; A. 13, third ray  $3\frac{2}{5}$ ; caudal  $1\frac{3}{5}$ , subtruncate; least depth of caudal peduncle  $6\frac{1}{3}$ ; pectoral  $2\frac{1}{8}$ , rays 19 or 20; ventral rays I, 5, fin  $1\frac{1}{3}$  in total head length.

Brown above, head with more or less distinct, light, dark edged areas which symmetrically disposed. Back



with 5 broad darker cross bands,  
first at dorsal origin and  
last at its termination. Dorsal  
fins translucent, spines and  
rays with indications of  
darker annuli. Caudal dark  
brown, lighter at base, with  
white margin, which broadest  
below. Pectoral gray, with  
lighter edges. Ventral dark  
brown, ~~lighter at base~~, with  
striking white borders. Length  
385 mm. (McCulloch)

New South Wales, ~~Victoria~~,  
~~Western Australia~~, Queensland.



Platycephalus mortoni Macleay

Platycephalus mortoni Macleay,  
Proc. Linn. Soc. New South Wales,  
vol. 8, pt. 2, p. 206, July 17, 1883  
(type locality, Lower Burdekin  
River, salt water, Queensland)  
(error).

Platycephalus mortoni McCulloch,  
Mem. Austral. Mus., No. 5, pt. 3,  
p. 401, Nov. 28, 1929 (reference).  
McCulloch and Whitley, Mem. Queensland  
Mus., vol. 8, pt. 2, p. 164, July 7, 1925  
(reference). —



Platycephalus mülleri Klunzinger

Platycephalus mülleri Klunzinger,  
Sitzb. Ber. Akad. Wiss. Wien,  
math.-naturw. Kl., vol. 80, pt. 1,  
p. 368, pl. 4, fig. 2 (head), 1879  
(type locality, Australia).

— McCulloch, Mem. Austral.  
Mus., no. 5, pt. 3, p. 401, nov. 28,  
1929 (reference).



Platycephalus proximus Castelnau

Platycephalus proximus Castelnau,

Proc. Zool. Acclimat. Soc.

Victoria, vol. 1, p. 85, July 15, 1872

(type locality, Melbourne market).

Macleay, Proc. Linn. Soc. New

South Wales, vol. 5, pt. 4, p.

217, 1881 (Melbourne).

— Jordan and Richardson, Proc.  
U.S. Nat. Mus., vol. 33, p. 630, 1908

(name only). — McCulloch, Mem.

Australian Mus., No. 5, pt. 3, p. 400,

Nov. 28, 1929 (reference).



Platycephalus papilloculus Fowler

Platycephalus papilloculus Fowler,  
Proc. Acad. Nat. Sci. Philadelphia,  
vol. 87, p. 399, figs. 32 - 33, Nov. 1,  
1935 (type locality, Durban,  
 Natal).



Depth  $2\frac{1}{5}$ ; head  $2\frac{3}{4}$ , width  $1\frac{7}{8}$ .  
Snout  $2\frac{7}{8}$  in head from snout tip; eye  $6\frac{1}{2}$ ,  $2\frac{1}{8}$  in snout, little over twice width of interorbital; maxillary reaches nearly opposite front eye edge, expansion 2 in eye, length 3 in head from snout tip; teeth villiform, in broad bands in jaws, about 15 irregular transverse series above anteriorly, narrowing posteriorly; lower jaw bands of teeth much narrower, 5 or 6 irregular series transversely; narrow band of villiform teeth on each palatine and horseshoe-shaped arch on vomer; interorbital deeply concave. Gill rakers  $2+4$ , equal gill filaments or  $2\frac{1}{8}$  in eye.



no nasal spines; strong antero-supraorbital spine, followed by strong entire keel, with strong postocular ~~the~~ spine; no preorbital spine; suborbital stay with spine below eye; preopercle with 3 spines, lowest smallest and uppermost largest, this slightly directed upward; 2 opercular, upper more posterior; large lower postocular spine, followed by 3 spines to suprascapula; upper postocular with 3 or 4 approximating keels behind and then pair of large spines at occiput.

Scales  $88 + 9$  in lateral line; tubular scales  $50 + 2$ , bifid; 9 scales above, 22 below, 14 predorsal forward to occiput.



Arborescent venules on snout,  
interorbital, postorbital, opercle,  
and along lower edge of sub-  
orbital stay. Scales with 11  
to 13 basal radiating striae;  
23 to 28 slender apical denticles,  
with 5 or 6 transverse series  
of basal elements; circuli fine.

D. IX - 11, I, second spine  $2\frac{1}{8}$   
in total head length, second  
ray  $2\frac{3}{4}$ ; A. 11, I, second ray  
 $3\frac{3}{5}$ , fin edge deeply notched;  
caudal  $1\frac{3}{4}$ , convex behind;  
least depth of caudal peduncle  
7; pectoral  $2\frac{2}{7}$ , rays II, 18;  
ventral rays I, 5, fin length  
 $1\frac{2}{5}$  in total head length.

Back and upper surfaces  
olive brown with obscured  
darker to blackish mottlings  
or blotches. Under surfaces



whitish. Over entire upper surface  
are scattered very small  
blackish dots, scarcely discern-  
able without a lens. Broad  
blackish-brown bar along  
and parallel close below  
suborbital stay. Black blotch  
obscured, at front of opercle.  
Spinous dorsal whitish, with  
large gray-black blotch term-  
inally. Soft dorsal pale or  
whitish, each ray with 3 or 4  
grayish blotches. Caudal pale  
brownish, with 4 irregular  
gray transverse bars, broken  
into variable spots above and  
terminally, and as 4 black  
blotches along lower edge of fin.  
Pectoral grayish, mottled  
with gray and black. Ventral  
whitish, mottled gray and



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with several large black blotches terminally. Anal whitish, with small black and gray spots terminally.

A. N. S. P., 20.63808. Durban,  
 Natal. H. W. Bell Marley.  
Length 258 mm. Type.



Platycephalus ransonneti  
Steindachner

Platycephalus ransonneti Stein-  
dachner, Sitzs. Ber. Akad. Wiss.  
Wien, math.-naturw. Kl., vol.  
74, p. <sup>209</sup>~~567~~, 1876 (type locality,  
Singapore).

Platycephalus ransonnetti Bleeker,  
Verh. Kon. Akad. Wet. Amsterdam,  
vol. 19, no. 2, p. 19, 1879 (copied).



Platycephalus richardsoni  
Castelnau

Platycephalus richardsoni  
Castelnau, Proc. Zool. Acclimat.  
Soc. Victoria, vol. 1, p. 82, July  
15, 1872 (type locality, Victoria).  
— Jordan and Richardson, Proc.  
U. S. Nat. Mus., vol. 33, p. 630, 1908  
(name only). — McCulloch,  
Mem. Austral. Mus., no. 5, pt. 3,  
p. 400, Nov. 28, 1929 (reference).



Platycephalus richardsonii Macleay,  
Proc. Linn. Soc. New South Wales,  
vol. 5, pt. 4, p. 583, 1881 (Melbourne).



Platycephalus sculptus Günther

Platycephalus sculptus Günther,  
Rep. Voy. Challenger, vol. 1, pt. 6,  
p. 41, pl. 17, fig. A, 1880 (type  
locality, Arafura Sea).

Thysanophrys sculptus Fowler,  
Mem. Bishop Mus., vol. 10, p. 301,  
1928 (copied).



Platycephalus serratus Cuvier

Platycephalus serratus Cuvier,  
 Hist. Nat. Poiss., vol. 4, p. 259,  
 1829 (type locality, Trincomalee,  
 Ceylon). — Günther, Cat. Fish.  
 Brit. Mus., vol. 2, p. 183, 1860  
 (copied). — Peters, Monatsb.  
 Akad. Wiss. Berlin, p. 839,  
 1876 (1877) (Cartaret Harbor,  
 New Ireland). — Day, Fishes  
 of India, pt. 1, p. 277, 1875  
 (copied); Fauna of British  
 India, Fishes, vol. 2, p. 240,  
 1889 (copied).



Thysanophrys serratus Fowler,  
Mem. Bishop Mus., vol. 10, p. 301,  
1928 (copied).



Platycephalus staigeri Castelnau

Platycephalus staigeri Castelnau,  
Victorian Offic. Rec. Philadelphia  
Exhib. (Res. Fish. Australia),  
p. 17, 1875 (type locality, Queensland).  
— Macleay, Proc. Linn. Soc. New  
South Wales, vol. 5, pt. 4, p. 583,  
1881 (Queensland).

— McCulloch and Whitley, Mem.  
Queensland Mus., vol. 8, pt. 2, p. 164,  
July 7, 1925 (reference).

— McCulloch, Mem. Austral. Mus.,  
no. 5, pt. 3, p. 401, Nov. 28, 1929  
(reference).



Platycephalus subfasciatus  
Günther

Platycephalus subfasciatus Günther,  
 Proc. Zool. Soc. London, p. 551, pl.  
 49, 1887 (type locality, Mauritius).  
 — Regan, Journ. Bombay Nat.  
 Hist. Soc., vol. 16, no. 2, p. 331,  
 1905 (Muscat); Journ. Linn. Soc.  
 London, ser. 2, vol. 12, Zool., pt. 3,  
 p. 237, May 1908 (Malaku, Maldives,  
 27 fathoms).



Platycephalus sundaicus Bleeker

Platycephalus sundaicus Bleeker,  
Atlas Ichth. Ind. Néerl., vol. 9,  
pl. (2) 419, fig. 4-a, 1877; Verh.  
Kon. Akad. Wet. Amsterdam, vol.  
19, no. 2, p. 18, 1879 (Sumatra;  
Java).

Thysanophrys sundaicus Jordan  
and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 630, 1908 (name  
only).



Platycephalus tentaculatus Rüppell

Platycephalus tentaculatus Rüppell,  
 Neue Wirbelth., Fische, p. 104, pl.  
 26, fig. 2, 1835 (type locality,  
 Red Sea). — Günther, Cat.  
 Fish. Brit. Mus., vol. 2, p. 184,  
 1860 (copied). — Kner, Reise Novara,  
 Fische, p. 122, 1865 (Java; Singapore).  
 — Elera, Cat. Fauna Filipinas, vol.  
 1, p. 498, 1897 (Cebu).

— Fowler, Proc. Acad. Nat. Sci.  
 Philadelphia, vol. 77, p. 255, 1925  
 (Delagoa Bay).



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Thysanophrys tentaculatus Jordan  
and Richardson, Bull. Bur. Fisher;  
vol. 27, p. , 1908 (Cuyo); Philippine  
Journ. Sci., vol. , p. 53, 1910  
(copied).

? Platycephalus longiceps (Ehrenberg)  
Cuvier, Hist. Nat. Poiss., vol. 4, p.  
255, 1829 (type locality, Massuah,  
Red Sea). — Klunzinger, Verh.  
zool. bot. Gesell. Wien, vol. 20, p. 813,  
1870 (types of Platycephalus  
longiceps Ehrenberg and P. tentacu-  
latus; Koseir; Red Sea).



Depth  $9\frac{1}{4}$ ; head 3. Snout  $3\frac{1}{4}$  in head from snout tip; eye  $6\frac{3}{4}$ , 2 in snout,  $1\frac{1}{3}$  in interorbital; maxillary reaches  $\frac{1}{3}$  in eye, length  $12\frac{3}{5}$  in head; inter-orbital 4, depressed, slightly concave. Gill rakers  $5+11$ , lanceolate.

Scales  $80+7$  in lateral line; tubular scales  $56+2$  in lateral line; 8 scales above, 15 below; 13 predorsal. Cranium largely scaly, head otherwise naked. Scales with 9 to 14 basal radiating striae; 31 to 37 apical denticles, with 2 to 5 transverse series of basal elements; circuli fine.

D. IX - I, 11, I, second spine  $2\frac{1}{3}$  in total head length, last



ray  $2\frac{1}{6}$ ; A.  $12, \underline{\underline{I}}$ , fifth ray  $3\frac{4}{5}$ ;  
caudal 2, hind edge convex; pectoral  
 $2\frac{1}{4}$ ; ventral  $1\frac{2}{5}$ .

umber above, with scattered  
darker dots, white below.  
Dorsals gray, spinous fin with  
4 rows of rounded neutral  
black spots, none larger than  
pupil, soft fin with 3 or 4  
neutral black spots on each  
ray. Caudal gray, with 6  
obscure series of darker spots.  
Pectoral olive, each ray with  
10 dusky dots. Ventral dusky  
brown terminally.

Red Sea, Portuguese East Africa,  
Malaya, East Indies, Philippines.

A. N. S. P., one example. Delagoa  
Bay, Portuguese East Africa.  
H. W. Bell-Marley, Length 223 mm.



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Platycephalus  
~~Aggroundus~~ variolosus Günther

Platycephalus variolosus Günther,  
Journ. Mus. Godeffroy, vol. 5,  
pt. 11, p. 167, pl. 109, fig. A,  
1876 (type locality, Samoa).  
— Schmeltz, Cat. Mus. Godeffroy,  
no. 7, p. 43, 1879 (Samoa).

Thysanophrys variolosus Fowler,  
Mem. Bishop Mus., vol. 10, p. 300,  
1928 (copied); vol. 11, no. 5, p. 350,  
1931 (reference).



Genus Leviprora Whitley

Leviprora Whitley, Austral.  
Zoologist, vol. 6, pt. 4, p. 327,  
Feb. 13, 1931. (Type Platycephalus  
inops Jenyns, orthotypic.)

No exposed bony ridges on  
upper surface of cranium.  
Eye larger than interorbital.



Leviprora inops (Jenyns)

Platycephalus inops Jenyns,  
Zool. Voy. Beagle, vol. 3, Fish,  
p. 33, 1840 (type locality:  
King George's Sound, Western  
Australia). — Günther, Cat.  
Fish. Brit. Mus., vol. 2, p. 180,  
1860 (copied); — Macleay, Proc.  
Linn. Soc. New South Wales, vol.  
5, pt. 4, p. <sup>584</sup>219, 1881 (copied). —  
Jordan and Richardson, Proc.  
U. S. Nat. Mus., vol. 33, p. 630, 1908  
(name only). — McCulloch,  
Austral. Mus. Mem., no. 5, pt. 3,  
p. 40, Nov. 28, 1929 (reference).  
— Castelnau, Proc. Zool. Acclimat. Soc.  
Victoria, vol. 2, p. 61, 1873 (South  
Australia).



Leviprora isacanthus Whitley,  
Austral. Zoologist, vol. 6, pt. 4,  
p. 327, 1931 (reference).



Genus Levanaora Whitley

Levanaora Whitley, Rec. Austral.  
Mus., vol. 19, No. 1, p. 95, Aug. 21,  
1933. (Type Platycephalus  
isacanthus & Cuvier, orthotypic.)



Eye shorter than snout. No  
supraorbital tentacle. Ridge  
of head not denticulated,  
except on hind border of  
orbit. Cranium with but few,  
not numerous, irradations.  
Preopercular spines 2,  
subequal. No antorse spines.  
Lateral line without prominent  
spines. Front dorsal spine  
long and slender. Caudal  
truncate. No dark blotch on  
first dorsal, which brown  
spotted like second.



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Levan aora isacanthus (Cuvier ~~Whitney~~)

Platycephalus isacanthus Cuvier,  
Hist. Nat. Poiss., vol. 4, p. <sup>246</sup>180,  
1829 (type locality, Indies;  
Waigiu; Bournu). — Lesson,  
Voy. Cochin, Zool., vol. 2, pt. 1,  
p. 214, 1830 (Waigiu). —  
Valenciennes, Règne Animal,  
Cuvier, Poiss., ed. ill., pl. 22,  
fig. 3, 1839.

— Bleeker, Nat. Tijds. Ned. Indië,  
vol. 2, p. (471) 481, 1851 (Rio);  
vol. 3, p. (52) 63, 1852 (Singapore);  
vol. 7, p. 226, 1854 (Macassar);  
vol. 9, p. 282, 1855 (Macassar);  
vol. 10, p. 346, 1856 (Rio, Bintang);  
vol. 12, p. 230, 1856 (Batu);  
vol. 15, p. 242, 1868 (Singapore).



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— Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 183, 1860 (copied). —  
Bleeker, Ned. Tijds. Dierk., vol. 1,  
p. 160, 1863 (Morotai, Halmahera),  
Verslag. Kon. Akad. Wet. Am-  
sterdam, ser. 2, vol. 2, p. 293,  
1868 (Rio, Bintang).

— Sauvage,ouv. Archiv. Mus.,  
Paris, <sup>ser. 2</sup> vol. 18, p. 55, pl. 7, fig. 1,  
1873 (type). — Alleyne and  
Macleay, Proc. Linn. Soc. New  
South Wales, vol. 1, p. 279, 1876  
(Palm Islands; Cape Grenville).  
— Bleeker, Verh. Kon. Akad.  
Wet. Amsterdam, vol. 19, no. 2, p.  
20, 1879 (copied).



— Günther, Rep. Voy. Challenger,  
 vol. 1, pt. 6, p. 41, 1880 (south of  
 New Guinea in S. lat.  $10^{\circ}36'$ ; E.  
 long.  $141^{\circ}55'$ ). — Macleay, Proc.  
 Linn. Soc. New South Wales,  
 vol. 5, pt. 4, p. <sup>585</sup>~~220~~, 1881 (Port Darwin;  
 Palm Islands; Cape Grenville).

— Elera, Cat. Fauna Filipinas,  
 vol. 1, p. 498, 1897 (Luzon, Manila  
 Bay).



Thysanophrys isacanthus Jordan  
and Seale, Bull. Bur. Fisher,  
vol. 26, p. , 1906 (Cavite). —  
Jordan and Richardson, Proc.  
U. S. Nat. Mus., vol. 33, p. 630,  
1908 (name only); Philippine  
Journ. Sci., vol. , p. 53, 1910  
(copied).

— Fowler, Mem. Bishop Mus.,  
vol. 10, p. 301, 1928 (copied).



Insidiator isacanthus McCulloch,  
Austral. Mus. Mem., No. 5, pt. 3,  
p. 404, Nov. 28, 1929 (reference).

McCulloch and Whitley, Mem. Queensland  
Mus., vol. 8, pt. 2, p. 165, July 7, 1925  
(reference). —

Levanaora isacanthus Whitley,  
Rec. Austral. Mus., vol. 19, No. 1,  
p. 95, Aug. 2, 1933 (reference).



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Genus Planiprora Whitley

Planiprora Whitley, Austral.  
Zool., vol. 6, pt. 4, p. 327, Feb. 13,  
1931. (Type Platycephalus  
fuscus Cuvier, orthotypic.)



Head very broad, depressed.  
Interorbital sunken, wider  
than transverse diameter of  
eye. Palatine teeth much  
larger than teeth in jaws or  
on vomer. Armature of head  
low, not conspicuous. Scales  
small. Body dark, without  
conspicuous dark spots.  
Ventrals, caudal and lower  
part of pectoral fins blackish,  
with white borders.



Planiprora fusca (Cuvier)

Platycephalus fuscus Cuvier,  
 Hist. Nat. Poiss., vol. 4, p. 241,  
 nov. 1929 (type locality, Port  
 Jackson). — Steindachner,  
 Sitzs. Ber. Akad. Wiss. Wien,  
 math.-naturw. Kl., vol. 56, pt.  
 1, p. 324, 1869 (Cape York). —  
Castelnau, Proc. Zool. Acclimat.  
 Soc. Victoria, vol. 1, p. 86, 1872  
 (Victoria) <sup>- Castelnau, or. City,</sup>  
 vol. 2, p. 132, 1873  
 (Freemantle); Proc. Linn. Soc.  
 New South Wales, vol. 3, p. (351)  
 379, 1878 (Port Jackson).  
 — Sauvage, Nouv. Arch. Mus., Paris,  
 ser. 2, vol. 1, p. 150



— Macleay, Proc. Linn. Soc. New South  
Wales, vol. 5, pt. 4, p. ~~517~~<sup>518</sup>, 1881 (Port Jackson; Port Phillip).<sup>2209</sup>

— Ogilby, Cat. Fish. New South Wales,  
p. 33, 1886 (Port Jackson; Port

Phillip; Maryborough). —  
Tenison-Woods, Fisher. New  
South Wales, p. 67, pl. 25.

— Ogilby, Edible Fish. New South Wales,  
p. 105, pl. 280, 1893.

— Jordan and Richardson, Proc.

U. S. Nat. Mus., vol. 33, p. 630, 1908

(name only). — Ogilby, Commere. Fish.  
Fisher. Queensland, p. —, 1915.

— Fowler, Proc. Acad. Nat. Sci.

Philadelphia, vol. 75, p. 44, 1923

(Victoria); Mem. Bishop Mus.,

vol. 5, pt. 3, p. 400, Nov. vol. 10,

p. 300, 1928 (copied).

— McCulloch, Austral. Mus.

Mem., no. 5, pt. 3, p. 400, Nov. 28, 1929

(reference)

— McCulloch and Whitley, Mem. Queensland Mus., vol. 8,

pt. 2, p. 164, July 7, 1925 (reference). — Fowler,



Platycephalus fuscus Ogilby,  
Handbook of Sydney, p. 133, 1898  
(error).

Planiprora fusca Whitley,  
Austral. Zoologist, vol. 6, pt. 4,  
p. 327, Feb. 13, 1931 (reference).



2211

Cottus staitensis (Parkinson)

Cuvier, Hist. Nat. Poiss., vol. 4, p.  
177, 1829 (type locality, Tahiti).

? Platycephalus cinereus Günther,  
Proc. Zool. Soc. London, pt. 3, p. 661,  
1871 (type locality, South  
Australia). — Macleay, Proc.  
Linn. Soc. New South Wales,  
vol. 5, pt. 4, p. <sup>584</sup>~~219~~, 1881 (South  
Australia). — Jordan and  
Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 630, 1908 (reference).



22/2



Genus Trudis Whitley

Trudis Whitley, Australian  
Zoologist, vol. 6, pt. 4, p. 327,  
Feb. 13, 1931. (Type Platyceph-  
alus bassensis Cuvier,  
orthotypic.)



No enlarged teeth in jaws.  
Interorbital equals transverse  
eye diameter. Median  
occipital ridges absent or  
rudimentary; no intermediate  
ridges between lateral  
occipital and supraorbital  
ridges. Lower preopercular  
spine considerably longer  
than upper. Scales rather  
large. Pectoral small.



2215

Trudis bassensis (Cuvier)

Platycephalus bassensis Cuvier,  
Hist. nat. Poiss., vol. 4, p. 247,  
Nov. 1929 (type locality, Port  
Western, Victoria). — Duoy  
and Gaimard, Voy. Astrolabe,  
Zool., vol. 3, p. 683, pl. 10, fig.  
3, 1835 (D'Entrecasteaux  
Channel, Tasmania). —  
Castelnau, Proc. Linn. Soc. New  
South Wales, vol. 1, p. 83, 1872  
(Melbourne market; south-east  
Australia); London Internat. Ex.  
Cat., p. 133, 1872 (Victoria);  
Records London Internat.  
Exhib., pt. 7, no. 5, p. 11, 1873  
(Victoria).



2216

— Sauvage, ouv. Arch. Mus. Hist.  
Nat. Paris, ser. 2, vol. 1, p. 150,  
1878 (type). — Klunzinger,  
Sitzs. Ber. Akad. Wiss. Wien,  
Math.-naturw. Kl., vol. 80, pt. 1,  
p. 367, 1879 (Tasmania; Murray  
River; Hobson's Bay). —  
Castelnau, Proc. Linn. Soc. New  
South Wales, vol. 3, p. (351) 379,  
1878 (Port Jackson). — Macleay,  
Proc. Linn. Soc. New South Wales,  
vol. 5, pt. 4, p. <sup>581</sup>~~216~~, 1881 (Tasmania;  
Melbourne; Sydney). — Ogilby,  
Cat. Fish. New South Wales,  
p. 33, 1886 (Tasmania; Victoria;  
New South Wales; Port Jackson).



2217

— Jordan and Richardson, Proc.  
U. S. Nat. Mus., vol. 33, p. 630,  
1908 (name only). — Waite, Rec.  
South Australian Mus., vol. 2,  
pt. 1, p. 173, fig. 282, 1921.

— Hughes, Proc. Roy. Soc. Victoria,  
new ser., vol. 41, pt. 1, p. 51, 1928  
(trematode parasite, Port Phillip).

— McCulloch, Mem. Austral.  
Mus., no. 5, pt. 3, p. 400, Nov. 28,  
1929 (reference).



Trudis bassensis Whitley, Rec.  
Austral. Mus., vol. 18, No. 4, p. 157,  
pl. 21, figs. 2-3, June 29, 1931  
(Derwent River estuary, Tasmania;  
Babel Island, Bass Strait).



2219

Platycephalus ~~bass~~ tasmanus  
Richardson, Trans. Zool. Soc.  
London, vol. . . . , p. 96, June 16,  
1842 (type locality, Port Arthur,  
Tasmania); Voy. Erebus and  
Terror, Fish., p. 23, pl. 18,  
figs. 1-2, 1845.

— Günther, Cat. Fish. Brit.  
Mus., vol. 2, p. 179, 1860 (Tasmania;  
Port Arthur; Madras; types).  
— Jordan and Richardson,  
Proc. U. S. Nat. Mus., vol. 33, p.  
630, 1908 (name only).



Trudis caeruleopunctatus  
(Mc Culloch)

Platycephalus caeruleopunctatus  
Mc Culloch, Austral. Zoologist,  
vol. 2, pt. 3, p. 120, 1922 (on  
Tenison - Woods); Austral.  
Zool. Handbook, vol. 1, p. 94,  
1922; Mem. Austral. Mus.,  
no. 2, pt. 3, p. 400, Nov. 28, 1929  
(reference).

Trudis caeruleopunctatus  
Whitley, Rec. Austral. Mus., vol. 18,  
no. 4, p. 158, pl. 21, fig. 4, June 29,  
1931 (Port Jackson, Watson's  
Bay near Sydney).



Platycephalus bassensis (not  
Cuvier) ~~Stead~~ Tenison-Woods,  
Fish Fisher. New South Wales,  
p. ~~112~~ 6, 1882. — Stead, Edible  
Fish. New South Wales, p. 112, pl.  
78, 1908.



Genus Longitrudis Whitley <sup>2222</sup>

Longitrudis Whitley, Austral.  
Zool., vol. 6, pt. 4, p. 327, Feb.  
13, 1931. (Type Platycephalus  
longispinus Macleay, orthotypic.)



2223

Head little depressed. Snout rather acute. Teeth small, uniform. Short median occipital ridge present; lateral occipital ridges connected with supraorbital ridges by intermediate ones. Lower preopercular spine over twice length of upper. Light brown, with reddish brown spots and row of spaced whitish spots along each side of dorsal surface.



2224

Longitundus longispinus (Macleay)

Platycephalus longispinus Macleay,  
Proc. Linn. Soc. New South Wales,  
vol. 9, pt. 1, p. 170, May 23, 1884  
(type locality, Off Port Jackson,  
500 fathoms). — Ogilby, Cat.  
Fish. New South Wales, p. 33,  
1886 (copied). — Stead, Fishes  
of Australia, pp. 197, 265, 1906;  
Edible Fish. New South Wales,  
p. 112, 1908. — McCulloch,  
Austral. Zoologist, vol. 2, pt. 3,  
p. 121, 1922; Austral. Mus. Mem.,  
no. 5, pt. 3, p. 401, Nov. 28, 1929  
(reference).



Longitrudis longispinis Whitley,  
Austral. Zoologist, vol. 6, pt. 4,  
p. 327, Feb. 13, 1931 (reference);  
Rec. Austral. Mus., vol. 18,  
p. 159, pl. 21, fig. 1, June 29,  
1931 (near Sydney).



Genus Thysanophrys Ogilby

~~Ogilby~~

Thysanophrys Ogilby, Proc. Linn.  
Soc. New South Wales, vol. 23,  
pt. 1, p. 40, June 23, 1898. (Type  
Platycephalus cirronasus  
Richardson, orthotypic.)



2227

Body rather short, stout, somewhat depressed. Head broad, much depressed. Eyes superior, close together. Mouth anterior, with large, slightly oblique cleft, lower jaw projecting. Premaxillaries slightly protractile. Maxillary lateral, partly exposed, without supplemental bone. Teeth villiform, in bands in jaws, and on palatines, 2 subovate patches on pterygoids and tongue smooth. Gill rakers short, stout, spinulose, few. Branchiostegals 7. Cranial ridges with strong spines. Hind extensions of premaxillaries not reaching frontals. Prefrontal and supraorbital bones greatly developed, former with strong spine. Preopercle angle extended and spinigerous. Opercle with 2 widely divergent spines. Vertebrae 27.



Scales moderate, rough, partly ciliated and partly cycloid. Head mostly naked. Front nostril with tentacle. Eyelids with dermal appendages. Lateral line complete, extends on caudal, tubes widely bifurcate and occupy entire length of each scale. Two separate dorsals, with 8 spines and 12 rays, second longer. Anal like second dorsal, rays 11. Caudal rounded. Pectoral moderate, rounded, rays 20, upper median ones largest. Ventrals large, widely separated, inserted behind 5 pectorals, with spine and 5 rays, fourth longest.

New South Wales. Characterized by its nearly naked head and scales of lateral line thickened and enlarged.



2229

Thysanophrys cirronasus (Richardson)

Platycephalus cirronasus Richardson,  
Voy. Erebus and Terror, Ichth.,  
p. 114, pl. 51, figs. 7-10, 1848

(type locality, Botany Bay). —  
Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 186, 1860 (type). —

Macleay, Proc. Linn. Soc. New  
South Wales, vol. 5, pt. 4, p.  
<sup>586</sup>~~221~~, 1881 (Botany Bay; Port  
Jackson). — Ogilby, Cat. Fish.  
New South Wales, p. 33, 1886  
(Botany Bay; Port Jackson).

— Castelnau, Proc. Linn. Soc. New  
South Wales, vol. 3, p. (351) 379,  
1878 (Port Jackson).

— Stead, Edible Fish. New South Wales,  
p. 113, 1908.



Thysanophrys cirronasus Jordan  
and Richardson, Proc. U.S. Nat.  
Mus., vol. 33, p. 630, 1908 (name  
only). — McCulloch, Mem. Austral.  
Mus., vol. 5, pt. 3, p. 402, Nov. 28,  
1929 (reference).

Zool. Res. Endeavour, vol. 2, pt. 3,  
p. 137, July 3, 1914 (Sydney;  
Buller).

— Whitley, Rec. Austral. Mus.,  
vol. 19, no. 1, p. 95, Aug. 2, 1933  
(on Palacky's reference). — McCulloch, Fishes of New South Wales,  
ed. 3, p. 95, pl. 40, fig. 353a, 1934.



? Platycephalus coronarius Palachy,  
Australia, p. 156, 1861 (type  
locality, Australia).



2232

Genus Elates Jordan and Seale

Elates Jordan and Seale, Bull.  
Bur. Fisher., vol. 26, p. 39, 1906.  
(Type Elates thompsoni  
Jordan and Seale, monotypic.)

Hyalorhynchus Ogilby, New Fish  
Queensland Coast, p. 118, Dec. 20,  
1910. (Type Hyalorhynchus  
pellucidus Ogilby, orthotypic.)



Bony long, quite slender and  
up to  $\frac{1}{5}$  of width. Head  
moderate, narrow. Snout  
depressed so muzzle spatulate.  
Eye large, slightly advanced  
in head. Lower jaw well  
protruded. Teeth finely  
villiform, in bands in jaws  
and on vomer and palatines.  
Bony interorbital very narrow.  
Gill rakers rather long. Spines  
of head all low, though slender  
and sharply pointed. Single  
long slender spine at angle  
of preopercle, little longer than  
orbit. Scales ctenoid, uniformly  
small. Lateral line complete, &  
axial on side, without keel  
and tubes rather large. Dorsal  
with first spine very short and



free. Soft dorsal and anal similar, membranes of all of lower rays deeply notched marginally. Caudal emarginate, upper lobe longer and ends in filament behind. Pectoral broad, little shorter than ventral.

A well defined natural genus, distinguished chiefly by its long, single preopercular spine and the otherwise rather inconspicuous armature of the head.



Elates thompsoni Jordan and Seale

Elates thompsoni Jordan and Seale,  
Bull. Bur. Fisher., vol. 26, p. 39,  
fig. 12, 1906 (type locality,  
Manila). — Jordan and

Richardson, Philippine Journ.

Sci., p. 53, 1910 (reference). —

Fowler, Proc. Acad. Nat. Sci.

Philadelphia, vol. 79, p. 289, 1927

(Philippines).

— McCulloch, Zool. Res. Endeavour,  
vol. 2, pt. 3, p. 135, pl. 28, figs. 2-2a,  
July 3, 1914 (paratype; Pine Peak,

Queensland, S. 59° E 12 miles N.E. of

Bowen, 19 to 25 fathoms). — McCulloch and

Whitley, Mem. Queensland Mus., vol. 8, pt. 2, p. 165, July 7, 1925 (reference).

— McCulloch, Austral. Mus. Mem.,

no. 5, pt. 2, p. 404, Nov. 28, 1929 (reference).



Hyalorhynchus pellucidus Ogilby,  
New Fish. Queensland Coast, p. 118,  
Dec. 20, 1910 (type locality, Off Pine  
Peak, South Queensland).



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d.<sup>2</sup> Curved dark band from nape to anal, another as parallel arc from third to seventh dorsal spines to upper caudal base, narrowing terminally and third paler short band along soft dorsal base.

c.<sup>2</sup> Fins with dark spots or blotches. cinctus

f.<sup>1</sup> Brownish olive, with 3 blue longitudinal bands on body; soft vertical fins dusky.

f.<sup>2</sup> Young with 3 large black blotches above joining along middle of side, with age breaking to form longitudinal dark band bifurcating to eye and caudal peduncle while above 2 parallel short bands and 1 below from cheek to caudal peduncle below; dark bar on caudal above and below with age. orientalis



Depth  $11 \frac{3}{4}$  to  $15 \frac{1}{2}$ ; head  $3 \frac{1}{8}$  to  $3 \frac{1}{5}$ , width  $2 \frac{1}{4}$  to  $3 \frac{1}{8}$ . Snout  $2 \frac{1}{2}$  to  $2 \frac{3}{5}$  in head from snout tip; eye  $5 \frac{1}{8}$  to  $5 \frac{2}{3}$ , 2 to  $2 \frac{1}{5}$  in snout, 4 times interorbital; orbit  $4 \frac{1}{2}$  in head from snout tip, 2 in snout; maxillary reaches  $\frac{3}{5}$  to  $\frac{3}{4}$  to eye, length  $3 \frac{1}{3}$  to  $3 \frac{3}{4}$  in head from snout tip; narrow bands of minute teeth in jaws, few on vomer, none on palatines; interorbital 4 to 5 in orbit, deeply concave; Gill rakers 6 to 8 + 17 or 18, slender, lanceolate, twice gill filaments or 2 in orbit.

No nasal spines; strong antero-supraorbital spine, directed posteriorly and last half of ridge with row of 6 or 7 low spines, then followed by row



of 3 low keels of which parietal and occipital each end in small spine behind; small short supraoccipital keel ends in small spine behind; post-ocular ridge of 4 low keels, with small spine close behind eye, then keel ending in small spine behind, likewise last 2 keels, of which posterior suprascapular; no preorbital spines; 2 close set keels along side of head, of which upper as suborbital stay with 3 well developed spines, first at pre-orbital, second spine opposite first third of eye and third largest below hind edge of orbit; lower ridge on side of head with



spine slightly before second spine of suborbital stay; long spine at preopercle angle  $1\frac{1}{4}$  times orbit; opercle with single weak spine.

Scales 88 to 98 + 6 to 7 in lateral line; tubercular scales 70 to 75 + 4 or 5 in lateral line; 7 to 8 above, 10 to 11 below; 15 to 18 predorsal. Behind eyes head largely scaly above. Caudal base scaly. Scales moderate or nearly same size on breast and belly as on sides. Scales with 8 or 9 basal radiating striae. Scales with 8 or 9 basal radiating striae; 18 to 20 slender nearly uniserial apical denticles, with 4 or 5 transverse series of basal elements; circuli fine, little coarser apically.



D. VII or VIII - I, 12, I, second spine  
 $2\frac{1}{5}$  to  $2\frac{2}{5}$  in total head length,  
 first branched ray  $2\frac{1}{5}$  to  $2\frac{1}{3}$ ;  
 A. I, 12, I, first branched ray  
 $3\frac{7}{8}$  to 4; soft dorsal and anal  
 with edges of membranes rather  
 deeply notched after end of  
 each ray; caudal  $1\frac{4}{5}$  to  $1\frac{7}{8}$ ,  
 emarginate, upper lobes ends in  
 short filament; pectoral  $2\frac{2}{5}$  to  
 $2\frac{3}{4}$ , rays I, 19; ventral I, 5,  
 length  $1\frac{9}{8}$  to  $2\frac{1}{8}$  in total head  
 length; least depth of caudal  
 peduncle  $2\frac{1}{4}$  to  $2\frac{1}{2}$  in orbit.

Brown, whitish below. Above  
 nearly uniform or with some  
 darker markings. Iris gray or  
 slate color. Dorsals with 3 or 4  
 deep brown spots on spines and  
 front rays, hind or short rays



each with dusky brown subterminal blotch. Caudal fin with 2 rows of rather large dark blotches terminally or subterminally. Fins otherwise pale.

Philippines, Queensland.



(D. 5361. 2640 [1136].) Corregidor  
Light, S.  $89^{\circ}$  W., 7.2 miles (N.  
lat.  $14^{\circ}24'15''$ , E. long.  $120^{\circ}41'$   
 $30''$ ), Manila Bay. In 12  
fathoms. February 9, 1909. Length  
92 to 150 mm. Ten examples.

D. 5442. San Fernando Point  
Light, N.  $39^{\circ}$  E., 8.4 miles (N. lat.  
 $16^{\circ}30'36''$ , E. long.  $120^{\circ}11'06''$ ),  
west coast of Luzon. In 45  
fathoms. May 11, 1909. Length 86 to  
142 mm. Eight examples. The  
caudal filament not longer  
than rest of caudal. Most of  
these examples show scattered  
dark spots on the back and  
about a dozen large dark  
blotches along lateral line  
with one or more small spots  
in the intervening spaces. The



dorsals and caudal are also  
rather contrasted with blackish  
spots.

A. N. S. P., 5 examples, Philippines.  
Commercial Museum of Philadelphia.  
Length 135 to 162 mm.



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Genus Neoplatycephalus Castelnau

Neoplatycephalus Castelnau, Proc.  
Zool. Acclimat. Soc. Victoria,  
vol. 1, p. 87, 1872. (Type  
Neoplatycephalus grandis  
Castelnau, monotypic.)

Cacumen Whitley, Austral. Zoologist,  
vol. 6, pt. 4, p. 326, Feb. 13, 1931.  
(Type Platycephalus speculator  
Klunzinger, orthotypic.)

Colefaxia Whitley, Rec. Austral. Mus.,  
vol. 19, no. 4, p. 249, Sep. 19, 1935.  
(Type Platycephalus macrodon Ogilby,  
monotypic.)



863

5189. Jolo market. March 7, 1908.  
Length 310 mm.



differs from Platycephalus  
in its dentition. Teeth very  
numerous, villiform, with others  
as large canines and very  
numerous, widely separated and  
placed between them in the lower  
jaw; in upper jaw these large  
teeth form a line on the palatines  
and extend in a rather numerous  
branch in front; those of the latter  
part are curved.



## Analysis of Genera

- a. Teeth of jaws and palate fine or villiform, without canines.
- b. Soft dorsal and anal with membranes entire.
- d. Head moderately depressed, with strong ridges and high sharp spines; only 1 enlarged preopercle spine; vomerine teeth in 2 parallel bands; palatine teeth in band.
- e. Head largely scaly; no enlarged or thickened scales on lateral line.
- l. No pit or cavity at hind orbital edge.
- f. Anigocinae. Preopercle without antorse spine.
- g. Side of head with single keel; infraorbital ridge armed with close-set serrations; rather strong antorse spine on preorbital edge; orbit with cirrus; scales large, pores less than 40 in lateral line.



## Analysis of Species

a. Leoplatycephalus. Interorbital space less than eye; preorbital spines obsolete; series of radiating ridges over suborbital stay behind eye; lower gill rakers 19; lower preopercle spine much longer than upper; pectoral shorter than postorbital; olivaceous, each scale with light center.

b. Cheek, preorbital and chin naked. speculator.

b.<sup>2</sup> Head scaly to muzzle. castelnaui.

a.<sup>2</sup> Colefaxia. Interorbital equals eye; preorbital spine prominent; ~~no~~ radia lower gill rakers 11 or

12. c. Lower preopercle spine sub-equal with upper; pectoral almost equals postorbital;



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brownish with red spots.  
macrodon.

c.<sup>2</sup> Lower preopercle spine  
twice upper; pectoral  
equals postorbital. comatus.



Neoplatycephalus castelnaui  
(Macleay)

Platycephalus castelnaui  
Macleay, Proc. Linn. Soc. New  
South Wales, vol. 5, pt. 4, p.  
587, May 20, 1881 (type locality,  
King George's Sound, Western  
Australia). — Jordan and  
Richardson, Proc. U. S. Nat. Mus.,  
vol. 33, p. 630, 1908 (name only).  
— McCulloch, Austral. Mus.  
Mem., no. 5, pt. 3, p. 401, Nov. 28,  
1929 (reference).



Neoplatycephalus castelnauiWhitley, Rec. Austral. Mus., vol.

18, no. 3, p. 116, pl. 13, fig. 1, March

25, 1931 (type ~~Albany~~);

Albany; Western Australia).



Neoplatycephalus conatus (Waite  
and McCulloch)

Platycephalus (neoplatycephalus)  
conatus Waite and McCulloch,  
Trans. Roy. Soc. South Australia,  
vol. 39, p. 466, pl. 12, figs. 1-3,  
5, 1915 (type locality, Great  
Australian Bight).

Platycephalus conatus McCulloch,  
Austral. Mus. Mem., No. 5, pt. 3,  
p. 401, Nov. 28, 1929 (reference).



Depth 9; head  $2\frac{3}{4}$ , width  $1\frac{4}{5}$ .  
 Snout  $3\frac{2}{3}$  in head from snout  
 tip; eye  $5\frac{3}{5}$ ,  $1\frac{3}{4}$  in snout, greater  
 than orbit; orbit  $4\frac{1}{2}$  in head, <sup>from snout tip</sup>  
 $1\frac{1}{4}$  in snout; maxillary reaches  
 $\frac{1}{3}$  in eye, length  $2\frac{7}{8}$  in head  
 from snout tip; upper jaw  
 with band of villiform teeth  
 on each side, expanded near  
 symphysis, where several strong  
 canines; mandible sides with  
 single row of enlarged canine-  
 like teeth, largest in middle  
 of series and near symphysis,  
 also some minute teeth on outer  
 side of bases of larger ones;  
 vomerine teeth in single arched  
 series, those in middle very  
 small and outer ones largest;  
 palatines with row of strong



canines, decrease in size backwards and some minute teeth external to their bases; interorbital width  $1\frac{4}{5}$  in orbit. Gill rakers  $3 + 12$ , lowest 7 as rudiments; length  $1\frac{2}{5}$  in orbit, concave.

Cranial ridges numerous, distinct, without spines. Antero-supraorbital spine moderately prominent; inner orbital margins raised; cheek with 2 parallel ridges, with hollow between, upper bears microscopic spine just behind vertical of post-orbital edge from which series of ridges radiate over exposed preopercle; 2 strong preopercle spines, lower larger and upper directed obliquely upward.



h.'



Scales 78 to 88 close above and along lateral line; tubes 74 to 78 in lateral line, first 2 usually spiniform. Scales on head extend forward on head to front eye edges.

D. ~~VIII~~ or ~~IX~~ 14, third spine  $2\frac{2}{3}$  in total head length, first branched ray  $2\frac{3}{4}$ ; A. 14, third ray  $3\frac{7}{8}$ ; caudal 2, sub-truncate; least depth of caudal peduncle 10; pectoral  $2\frac{1}{3}$ ?; rays 21; ventral rays I, 5, fin  $1\frac{1}{2}$  in total head length.

Light sandy yellow. Dark area in middle of opercle, and some bluish blotches along side below lateral line. Pectorals, ventrals and middle of caudal fin very slightly darker than rest of fins. Length 300 mm.



(Waite and McCulloch.)

Great Australian Bight.



Neoplatycephalus

~~Cacumen~~ speculator (Klunzinger) <sup>2255</sup>

Platycephalus speculator Klunzinger,  
Archiv Naturg., vol. 38, pt. 1, p. 28,  
1872 (type locality, Hobson's Bay,  
Victoria); Sitzb. Ber. Akad. Wiss.  
Wien, math.-naturw. Kl., vol. 80,  
pt. 1, p. 367, pl. 4, fig. 1, 1879  
(Hobson's Bay).

— McCulloch, Austral. Mus. Mem.,  
no. 5, pt. 3, p. 400, nov. 28, 1929  
(reference).

Cacumen speculator Whitley,  
Austral. Zoologist, vol. 6, pt. 4,  
p. 326, Feb. 13, 1931 (reference).



Plectorhynchus paulayi Steindachner,  
 Anzeiger Akad. Wiss. Wien, vol. 32,  
 Nr. 28, July 11, 1895, p. 180. Mauritius.

(copied).

Plectorhynchus haematocephalus Seale,  
 Ichth. Ind. Néerl., vol. 76,

(19) 297, fig. 2. — Seale and K

Mus., vol. 33, 1907, p. 44

(Zambounga).

Depth  $2\frac{3}{4}$  to  $2\frac{4}{5}$ ; head  $3\frac{1}{5}$  to  $3\frac{1}{4}$ ,  
 width  $1\frac{7}{8}$  to  $2\frac{1}{4}$ . Snout  $2\frac{1}{3}$  to  $2\frac{2}{5}$   
 in head; eye  $3\frac{3}{4}$  to 5,  $1\frac{1}{2}$  to  $2\frac{7}{8}$  in  
 snout, 1 to  $1\frac{1}{2}$  in interorbital; maxillary  
 reaches about opposite eye, expansion  
 $1\frac{1}{3}$  to  $1\frac{3}{4}$  in eye, length  $2\frac{7}{8}$  to 3 in  
 head; teeth villiform, in bands in  
 jaws, of 5 or 6 irregular rows and  
 several outer rows little enlarged;  
 lips broad, thick, coriaceous;



Neoplatycephalus speculator

Whitley, Rec. Austral. Mus., vol.

19, No. 4, p. 247, pl. 18, fig. 6

(photograph of dorsal view).

Sep. 19, 1935 (Cape Everard,  
Victoria, 45 fathoms).

Neoplatycephalus (Neoplatycephalus)

speculator Whitley, l.c., p. 248.

(diagnosis in key).



Leoplatycephalus grandis Castelnau,  
 Proc. Zool. Acclimat. Soc. Victoria,  
 vol. I, p. 87, 1872 (type locality,  
 Melbourne market). — Macleay,  
 Proc. Linn. Soc. New South Wales,  
 vol. <sup>154</sup>5, <sup>587</sup>p. 222, 1881 (Melbourne).  
 — McCulloch, Austral. Mus.  
 Mem., no. 5, pt. 3, p. 402, Nov. 28,  
 1929 (reference).



Platycephalus grandis Jordan  
and Richardson, Proc. U. S. Nat.  
Mus., vol. 33, p. 630, 1908 (name  
only).



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Depth  $8\frac{2}{5}$ ; head  $2\frac{4}{5}$ , width  $1\frac{3}{5}$ .  
Snout  $3\frac{1}{3}$  in head from snout  
tip; eye 6, 2 in snout, greater  
than interorbital; maxillary  
reaches  $\frac{1}{2}$  in eye; an outer band  
of villiform teeth each jaw,  
although in lower jaw row of  
cardiform teeth present among  
villiform ones; patch of coarse  
cardiform teeth, few small  
canines, at mandibular sym-  
physis; few acute teeth on vomer,  
and each palatine with cardi-  
form and aniniform teeth in  
single row and interspersed  
with villiform ones; interorbital  
 $6\frac{2}{3}$  in head, concave. Gill rakers  
19, lower anterior ones rudimentary.

Top of head with weak  
bony ridges, converging slightly  
on occiput. Preocular spine



2260

nearly obsolete. Each scale with 7 to 10 striae radiating from suborbital stay. Preopercle with lower spine more than twice as long and thick as upper. Two strong opercular spines and broad flap.

Scales 80 close above along lateral line; 13 above, 28 below. Scales not extending on fins except caudal and only forms weak ridge along lateral line.

D. IX - 12 or 13, first spine begins <sup>second spine  $2\frac{3}{5}$</sup>  little behind head and detached, soft dorsal begins before anal origin and last ray end before anal end; A. 14; caudal bluntly rounded; pectoral  $2\frac{1}{3}$  in head, rays 20; ventral rays I, 5, fin  $1\frac{4}{5}$  in head.



2261

Olive brown above, white below.  
Each scale with light pearly  
center, bounded by its brownish  
edge. Eye dull milky bluish,  
iris surrounded by golden  
ring. Lower lip fuscous towards  
chin. Dorsal fins hyaline. Anal  
rays smoky toward bases.  
Some smoky brown streaks on  
paired fins. Caudal with an  
inconspicuous smoky band  
along lower lobe, below which  
fin whitish. Length 545 mm.  
(Whitley.)

Victoria.



2262

Neoplatycephalus macrodon (Ogilby)

Platycephalus macrodon Ogilby,  
Proc. Linn. Soc. New South Wales,  
vol. 10, pt. 2, p. 226, July 31, 1885  
(type locality, Port Jackson,  
New South Wales); Cat. Fish.  
New South Wales, p. 33, 1886  
(copied). — Waite and McCulloch,  
Trans. Roy. Soc. South Australia,  
vol. 39, p. 468, pl. 12, fig. 4 (gill  
arch), 1915.

— McCulloch, Austral. Mus. Mem.,  
no. 5, pt. 3, p. 401, Nov. 28, 1929  
(reference).



Platycephalus (Neoplatycephalus)  
macrodon McCulloch, Austral.  
 Zoologist, vol. 2, pt. 3, p. 121, 1922.

Neoplatycephalus macrodon Roughley,  
 Fishes of Australia, p. 183, 1916.

— Whitley, Rec. Austral. Mus., vol.  
 18, no. 4, p. 159, pl. 21, figs. 5-6,  
 June 29, 1931 (Port Jackson).

Neoplatycephalus (Colefaxia) macrodon  
Whitley, l.c., vol. 19, no. 4, p. 249.  
 Sep. 19, 1935 ("Ogilby's type and other  
 examples").



2264

Genus Ratabulus Jordan and Hubbs

Ratabulus Jordan and Hubbs,  
Mem. Carnegie Mus., vol. 10, No. 2,  
p. 286, June 27, 1925. (Type  
~~Ratabulus~~. Thysanophrys  
megacephalus Yanaka,  
orthotypic.)

Teeth diverse, upper canine like  
and depressible in wide lobe  
anteriorly, minute and granular,  
except on innermost row on sides  
of jaws. Vomerine teeth few,  
enlarged, very sharp and depressible.  
Palatine teeth sharp, enlarged  
and depressible along innermost  
row.

> infraorbital ridge with  
numerous differentiated spines,



1 on preorbital, 2 below front  
of eye (posterior enlarged); 3  
below posterior part of orbit;  
very strong last one turned  
upward and followed by 3  
small spines. No continuous  
ridge from orbit to occiput.  
Inner edge of premaxillary  
expanded inward, but not  
backward, as thin flexible lobe.



2266

Ratabulus megacephalus (Tanaka)

Thysanophrys megacephalus Tanaka,  
Zool. Mag., vol. 29, p. 11, 1918  
(type locality, Tokyo market).

Ratabulus megacephalus Jordan  
and Hubbs, Mem. Carnegie Mus.,  
vol. 10, no. 2, p. 287, June 27, 1927  
(Kagoshima Bay).